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Transport Administration in Tropical Dependencies

By George V. O. Bulkeley, C.B.E., M.I.Mech.E.
With Chapters on Finance, Accounting, and Statistical Method
IN COLLABORATION WITH
Ernest J. Smith, F.C.I.S.
(formerly Chief Accountant, Nigerian Government Railway)
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THE RAILWAY GAZETTE
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Another Steel Production Record

FEBRUARY steel output statistics, issued by the British Iron & Steel Federation, showed that during that month production exceeded the rate of 15 million tons a year for the first time. The rate of 15,049,000 tons was well above the previous record of 14,589,000 tons which was set up in January; in February last year, output was at the rate of only 10,726,000 tons, but this was due, in part, to the incidence of the fuel crisis of that time. For the first two months of the year steel producion has been running at a level well above that needed for the attainment of the 14 million ton target for 1948, even allowing for falling output during the holiday periods. The major factors of uncertainty in the outlook are bottlenecks of scrap, pig-iron, coke, and transport. Pig-iron production in February improved and was at the rate of 9,169,000 tons, which is close to that required for the attainment of the 1948 target—9,200,000 tons. Last month's output compared with 8,726,000 tons in January and with 6,560,000 tons a year ago.

* * * *

Traders and New Transport Regime

The annual luncheon of the Mansion House Association on Transport always attracts a large gathering, and its principal guests usually include the Minister of Transport in office. Last week, in addition to Mr. Alfred Barnes, the guests included Sir Cyril Hurcomb, Chairman of the British Transport Commission, and representatives of the various Executives which have been set up under that body. As members of the Association are all users of transport, there was a natural anxiety to hear anything Mr. Barnes or Sir Cyril Hurcomb might have said about the repercussions of the new transport organisation on trading interests. As will be seen from a summary of the speeches given elsewhere in this issue, neither gave the Association very much information, but the Minister, in effect, urged traders to bring their influence to bear on the Commission to provide efficient services, and Sir Cyril Hurcomb said he thought a good deal could be done to increase the efficiency of transport services, and that he believed the steps now being taken would have that result.

* * * *

"C" Licences and Railway Transport

The large increase in applications for "C" licences which has taken place since the end of the war has caused some concern because it has been felt that it might reflect anxiety among traders to make sure of having their own transport delivery services rather than be dependent on a State-owned monopoly. In the past year there has been an increase of over 100,000 "C" licences, and for this there may be several reasons. The war cut down the normal flow of vehicles to industry, and some abnormal expansion after the war would not necessarily denote more than an endeavour to catch up. Fleets necessarily have become older because of the impossibility of replacing vehicles for some years, and, also because of the difficulty in being assured of replacement, some firms may tend to keep units in service when replacement vehicles are secured. Mr. Barnes obviously had doubts as to the reasons for the large increase in "C" licences when he referred to the matter at the Mansion House Association on Transport luncheon. He realised that under the new transport set-up the "C" licence holders as a body might constitute a threat to the stability of a rail and road rates structure, and he warned his audience that he was determined that nothing should be permitted to undermine the stability of the railways.

* * * *

Overseas Railway Traffics

With the handing over on March 1 of the British-owned railways in Argentina to the Argentine Government, the issue of individual weekly traffic returns has ceased. On July 1, as reported last week, the British systems in Uruguay also will be taken over by the Government of that country. Latest figures from the Central Uruguay Railway, for the week ended March 6, show a decline on aggregate for 36 weeks of £106,096. There was a gain of £571 during the seven days in question, but this followed a loss of £1,000 in the preceding week. Among the associated companies, the Midland Uruguay recorded an improvement of £7,149 in January, putting its aggregate

£317 ahead of the preceding year. Leopoldina earnings have suffered severely from the recent strike, the heaviest setback occurring in the week ended February 28, when the decrease was £34,079. A week later the company's aggregate was £94,170 lower in comparison with 1947. January results on the C.P.R. gave net earnings of £25,750, a decrease of £21,000, although the gross figure was up by £391,750. A smaller gross earnings gain on the Canadian National, amounting to £286,000 for the month, was insufficient to offset a rise of £634,000 in operating expenses, the final result being a deficit of £140,250.

* * * *

British Investments in Latin America

For nearly 40 years our contemporary, *The South American Journal*, has given annual compilations of British capital invested in Latin-America. The latest of these shows that at the end of 1947 the total British capital concerned with Latin-America was £910,182,120, compared with £906,824,354, the apparent increase being due to certain securities not quoted in 1946 having received a quotation in 1947. The average return is 2·3 per cent., compared with 2·8 per cent. for the previous year, and no less than 47·5 per cent. against 43·7 per cent. of the total received no return last year In 1947, investments in Argentina amounted to £349,135,633, or one-third of the total. In Brazil, £213,355,744 of British capital is concerned. Venezuela, even with 53 per cent. of British money invested in it going without any return, holds the best record, with an average return of 10·2 per cent. on a total of £17,903,263. On the other hand, 76 per cent. of the capital invested in the railways of that country received no return. Total investment in railways in Latin-America in 1947 was £437,796,327, on which the amount of interest received was only £3,105,886, or 0·7 per cent. The amount receiving no interest was £333,436,537.

* * * *

C.P.R. Results in 1947

A striking indication of the way in which costs have risen recently in Canada is provided by the preliminary figures for 1947 issued by the Canadian Pacific Railway Company. These show that, although the gross earnings of $318,585,919 are substantially ahead of those in 1946, when $292,495,828 was earned, the net result of $22,892,189 represents an increase of only $2,049,139. Going back to 1945, when the peak wartime figures had only just been passed, there were gross earnings of $316,109,358, and net earnings of $36,054,334, so that although the results of two years ago were actually exceeded, the net earnings are over $13,000,000 lower. Other income, amounting to $24,788,927, gave the sum of $47,681,116 available for fixed charges, which required $15,787,174, leaving a final net income of $31,893,942. Dividends of 4 per cent. have been paid on the preference stock and 2 per cent. on the ordinary stock, after which there is a balance of $20,636,260 to be transferred to profit and loss account. A final dividend of 3 per cent. on the ordinary stock is payable on March 31 next and will take $10,050,000, which has not been deducted in the accounts for the year 1947.

* * * *

Track Maintenance Statistics

The "Annual Abstract of Statistics," 1935-46, just published by the Central Statistical Office, contains some interesting summaries of information relating to the track maintenance of the main-line railways before, during and after the war period. It is shown that the average annual rate of renewal of the tracks during the five years before hostilities was 1,385 miles. During the five war years, the annual average was 952 miles, and during 1945 and 1946 the average annual rate reached 1,150 miles. The rate of renewal during the five war years therefore gives a total deficiency of 2,063 miles of relaid track on the pre-war standard, and the two subsequent years add a further deficiency of 469 miles to the wartime accumulation, making the arrears to the end of 1946, 2,530 miles. The average annual tonnage of rails used in five years before hostilities was 211,000. During the five war years the average annual rail tonnage used was 154,600. During 1945 and 1946 the average annual tonnage used increased to 179,000 tons. The total deficiency of rail tonnage from 1940 to 1946 inclusive is 346,000 tons, or just over 1½ years' normal supply, and the accumulated shortage of sleepers during the same period amounts to two years' supply at the pre-war average.

* * * *

The Next International Railway Congress

Inquiries we have received recently make it clear that many persons are uncertain about the date and place of the next International Railway Congress, and some confusion seems to have arisen from the fact that it is widely known that a meeting is to be held next year in Portugal. We are informed officially by Mr. P. Ghilain, General Secretary of the International Railway Congress Association, that this will be the next meeting of the Enlarged Permanent Commission, and that it will take place at Lisbon in the Spring of 1949. The present intention is that the next congress of the Association will be held in 1951. It has, of course, been the custom to hold the Congress in the same country as the meeting of the Permanent Commission, unless there is any change in the situation in the meanwhile, but no formal decision as to date or place has yet been taken. For one reason or another, it has proved impracticable in the past to hold the congresses at regular intervals, excepting between 1895 and 1910. The full list is as follows:—

1. Brussels, 1885
2. Milan, 1887
3. Paris, 1889
4. Petersburg (Leningrad), 1892
5. London, 1895
6. Paris, 1900
7. Washington, 1905
8. Berne, 1910
9. Rome, 1922
10. London, 1925
11. Madrid, 1930
12. Cairo, 1933
13. Paris, 1937
14. Lucerne, 1947

* * * *

London Transport's Vertical Traffic

A remarkable feature of the London Transport service is the efficiency with which passenger traffic is kept circulating within underground stations, even at the peak of the rush hour. Anyone who has had some experience of the Paris Métro will testify the truth of this proposition with enthusiasm. The reason is partly to be found in the unceasing effort to improve lift and escalator services, as an article on the development of automatic lifts in this issue shows. The article marks the twentieth anniversary of the installation of the first automatic lift at Warren Street Station. Since then the system has been improved to control a number of lifts; speech equipment has been incorporated; a new system of timing has been adopted; safety precautions covering every possible contingency have been introduced; and lift speed has been raised from 180 ft. per min. to 600 ft. per min.

* * * *

R.I.V. Regulations Revived in Germany

From April 1 the combined British-American zone in Germany will participate with the other Western European countries in observing the pre-war international regulations governing the use of goods wagons. These regulations, known as R.I.V. (Régulations Internationales Véhicules) involve the payment by the participating countries of a rental for the use of foreign wagons within their borders. Under the agreement shortly to come into force, the charges will amount to about $1 a day for the first five days, after which there will be an increase in the rate for every succeeding five-day period. It is felt that these charges will expedite the return of wagons to their countries of origin, and avoid situations such as occurred last November, when the European wagon pool owed over 14,000 wagons to the combined zone in Germany. A special numbering system will be used to ensure that countries receive back their own wagons and not old vehicles which are difficult to repair. Last year the combined zone lost many repaired wagons and received back old ones in exchange. Countries participating in the agreement with the combined zone will be the French zone of Germany, Italy, Norway, Sweden, Denmark, Holland, Belgium, Luxembourg, and Switzerland.

* * * *

Signalling of Siding Connections

The paper by Mr. G. H. Crook on the signalling of siding connections, read before the Institution of Railway Signal Engineers, was a reminder that what many might consider a relatively unimportant side of the signal engineer's activities is very much the reverse. Not only are important engineering problems frequently involved, but the economic aspect of the

effective control of sidings located away from stations or ordinary signal box areas also comes into question. In this, as in so many other branches of signalling, improved technical equipment has brought a change of ideas, and there is a movement towards using fewer fixed signals than was once the practice. Indeed, Mr. Crook emphasised that the title of his paper could be considered a misnomer, as his purpose was to advocate the elimination, when compatible with safety, of as many fixed signals as possible. His paper recalled, as he pointed out in the discussion, that written in 1900 by the late Mr. A. W. Szlumper, describing means already in use for that purpose, more particularly those applied on the L.S.W.R., derived from the Sykes block locking apparatus.

* * * *

Shunting Locomotives Built in South Africa

On account of the large volume of orders on hand with overseas locomotive-building firms, the South African Railways administration decided to undertake construction of a new series of shunting engines in its own works at Salt River. They will replace old main-line locomotives which have been used on these duties and are nearing the end of their useful life. The new class, which is described elsewhere in this issue, has the 0-8-0 wheel arrangement, and is equipped with a tender carrying 11 tons of coal and 6,000 gal. of water. Apart from the wheels, and certain components for which overseas patents are held, all the parts have been made in South Africa. The boiler pressure is 180 lb. per sq. in., and the total heating surface 2,268 sq. ft., to which the superheater contributes 428 sq. ft. Coupled wheels are 4 ft. in diameter. At 75 per cent. boiler pressure the locomotive develops a tractive effort of 38,000 lb. The tender body is of special design in order to provide increased coal capacity without impairing the rearward view, for which purpose the sides are curved inwards at the top. Its underframe and bogies, however, are identical with the tenders fitted to the "15E," "15F," and "16E" classes.

* * * *

The Railway Executive

ELSEWHERE in this issue we explain the general organisation of the Railway Executive under the British Transport Commission, the methods by which the present functional responsibilities of the members of the Executive are discharged, and the relationships with the Chief Regional Officers. Diagrams showing the general set-up of the Railway Executive, and also the lines of communication with a typical region—for this purpose the Scottish Region has been taken—are also given.

In presenting the survey of the set-up of the Railway Executive we have treated it purely objectively. To us and, no doubt, to many of our readers, perhaps especially those overseas with experience of the working of large-scale organisations, certain weaknesses are apparent. These are not necessarily the fault of the present members of the Executive for, to a considerable extent, at least, the broad outline of the organisation was imposed on them from above. We understand, too, that the present organisation and set-up may be regarded to a certain extent as experimental and subject to amendment, as a result of experience. That is all to the good, for it seems to us that there are a number of respects in which modifications could be made with advantage. We do not intend to deal with these at the present time, but no doubt we shall return to the subject as opportunity offers.

The decision on, and establishment of, the organisation now in operation had to be taken between the passing of the Transport Act in August last year, and the vesting date, January 1, 1948—far too short a time in our view for the detailed consideration of all the factors involved in the transfer from private to State ownership of an industry of the magnitude and complexity of the British railways. Moreover, it must not be overlooked that the railways constituted only one part of the problem which, under the Transport Act, had to be tackled if the objective of that Act—the co-ordination of most forms of inland transport—was to be implemented. Two years, rather than the two months or so which were effectively available, would have been a more reasonable time to have accorded to the study of this problem.

As things were, however, it was clear that it was necessary to evolve some form of organisation which would not involve too great a disturbance in day to day practice, and which could be brought into being without interrupting services to the public. There can be little doubt that this was the reason for the adoption of the regional system. Apart from Scotland, the setting-up for which of a separate region was a matter of regional expediency, the other regions were ready-made in the form of the then existing railway systems. The split of the old L.N.E.R. into the Eastern and North Eastern Regions was a simple matter, because of the divisional basis on which that railway was organised.

As a new system was being created for Scotland there was obviously a temptation to make the organisation of that region something in the nature of a prototype which eventually would be adopted by the other regions. This is not to suggest that the Scottish Region represents the Railway Executive's last word on what regional organisation should be, or that where other regions differ from the Scottish they are shortly to be brought into line with that region. On the contrary, there is reason to believe that to a certain extent, at least, an open and inquiring mind is still being preserved as to the ultimate forms which the regional organisation should take.

The primary objectives of the Act under which the Railway Executive was established may be summarised as the unified working of the various transport agencies vested in the British Transport Commission, and the achievement of efficiency and economy of operation as a result of that unification. The extent to which these objectives are obtained by the co-operative efforts by the various executives under the Commission must be the measure of the success of the present experiment. This ultimate aim, therefore, must be the over-riding consideration in any appraisal of the present structure and organisation of the Railway Executive.

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Prices, Profits and Dividends

THE Federation of British Industries, in response to the request of the Chancellor of the Exchequer, has consulted with the Association of British Chambers of Commerce and the National Union of Manufacturers, and has now placed before Sir Stafford Cripps a report incorporating proposals for obtaining a reduction of prices and absorbing the consequences on the level of profits. As it is little more than a month since the request was received from the Chancellor, it was hardly to be expected that the report could be either exhaustive or very definite in its recommendations. It was already clear that the key to reduced prices must be found in productivity, and equally that maximum production is not possible while present shortages and similar disturbances continue.

As the report points out, a system of restricting prices and profits and of centrally controlling wages is unsatisfactory in principle, and it is doubtful whether reduction of prices, coupled with stabilisation of wages, can fail to be inflationary in itself, because it lays the same volume of goods open to an increased pressure of money. Unless other steps are taken at the same time, measures of this kind cannot be more than a temporary contribution towards a real solution. That has been proved by the unfortunate experiences of other countries that have attempted similar remedies. It is probable, of course, that the proposals now made, if acceptable to the Government, will be supplemented by others which will not be made known until the Budget speech on April 6. It will then be known whether the Chancellor intends to effect any reduction in Government capital expenditure, for, so far, the calls to industry and individuals for less spending have not been accompanied by a practical similar lead from the departments.

The principal conclusions which the report makes, and which it recommends as the basis of voluntary action by productive industry, call for immediate response from members of the three organisations signatory to the report, and it is suggested that they should remain operative for a period of a year. Manufacturers are urged to make a determined drive to secure the maximum productivity from available plant and to review their prices with the object of announcing price reductions as soon as possible, and to face the consequences of reduced profits.

A ceiling on selling prices at the levels ruling today should be imposed without any reduction in quality, subject to discretion in exceptional cases. These exceptions would include increases in cost entirely outside manufacturers' control, or that have already taken place but have not been reflected in higher prices. Price levels for export business must be dependent on competitive conditions, and, therefore, it is necessary to reserve complete flexibility. As the cost of prices of all manufactured goods in this country are dependent on the prices of basic commodities and services, such as fuel, transport and local rates, the Government and the responsible authorities are expected to take action on the lines recommended for private industry.

The report also urges that dividends should be stabilised so that the gross amount distributed by a business in the current year should not exceed that distributed on the same capital in its last financial year. Here, again, discretion should be permitted in the case of new businesses and those which have suffered directly from the effects of concentration, war damage, or enemy occupation. Last weekend it was announced that Sir Frederick Bain, President of the F.B.I., had informed the Chancellor that he had approached chairmen of 580 of the largest industrial companies, both public and private. Of the public companies, the capital of which was £2,160,814,000, 97·8 per cent had assented to the dividend limitation proposal.

Whether the proposals amount to as much as the Government hoped would be forthcoming seems to be doubtful, but, on the other hand, any expectations of more concrete proposals must have been based on a failure to recognise that the solution sought could be little more than a palliative. It is not yet clear that the Government realises that, in attacking inflation at the prices end, it is attempting to deal with symptoms rather than causes. Even if the report is adopted in its entirety and loyally implemented by every member of the three organisations which are signatory to it, it cannot go a long way towards checking the ills which beset the national economy at the present time.

* * * *

Gresley's Contributions to Carriage and Wagon Design

THE career of Sir Nigel Gresley was associated with such spectacular results in connection with locomotive development, that it is easy to overlook the important contributions which he made over a still greater number of years to carriage and wagon design. In carriages, especially, his achievements are notable, extending over an even longer period at Doncaster than his control of locomotive design. For it was so long ago as 1905 that Gresley took charge of the carriage department there, six years before he became Chief Mechanical Engineer of the Great Northern Railway, in succession to Mr. H. A. Ivatt. It was during those six years that he introduced the system of articulation for carriage stock, which formed a feature of so many of his designs for passenger vehicles. The story of Gresley's influence on Great Northern carriage design is of great interest, and it is a pity that a condensed version of it could not have been prefixed to the very useful paper which Mr. Newsome recently presented to the Institution of Locomotive Engineers.*

Admittedly, Mr. Newsome has gathered sufficient information relating to those eighteen years to fill a lengthy paper. His narrative makes an admirable companion to the story of L.N.E.R. locomotive development over the same period which was recounted by Mr. B. Spencer last year (see our issue of March 28, 1947). Mr. Newsome's style and treatment of his subject resemble Mr. Spencer's; he contents himself with a simple, straightforward record of design, experiment, and construction, and allows himself practically no margin for criticism. The resulting compilation is valuable as a work of reference; furthermore, practically all the important innovations are illustrated, though in this connection it is a pity that originals other than working drawings were not used for blockmaking, for in several cases the reduction in size is so great that the printed version is difficult to read. With a little latitude, to enable the story to be told more simply, the order of recorded facts is generally chronological, so that the reader can appreciate the parallel developments in carriages and wagons of all types.

Mr. Newsome's panorama of L.N.E.R. carriage and wagon development emphasises certain features which formed an essential part of the Gresley policy. The wide use of articulated passenger stock, the undeviating faith in the buckeye coupler, the highly successful types of compound bolster bogie, and the insistence on the replacement of gas by electricity for heating and cooking, were perhaps the most characteristic points of the main-line carriage stock. Concerning wagons, one of the most important of the general changes brought about by Gresley was the gradual fitting of vacuum brakes, so that, instead of 1 wagon in 30 being so fitted (as in 1923), the proportion had risen to about 1 in 5 by 1941. There was a change from cast iron to cast steel for axleboxes, and the later successful production of fabricated steel axleboxes was another improvement which greatly reduced maintenance costs. Between 1936 and 1939, the change from all-timber to all-steel 20-ton hopper wagons was reflected in the purchase of 3,355 such wagons from private manufacturers.

These characteristics, however, are merely identifying features in a general policy which, although continually striving for improvement in details, is rather difficult to picture, because—like Gresley's locomotive policy—it did not concentrate on the production of a few general-purpose designs, but rather on the multiplication of numerous special-duty types. This very diversity is perhaps one of the chief reasons why the Gresley locomotives command such an extraordinary degree of interest—extending even to the lay public—and the same, to some extent, is true of his carriage stock. Many of the individual efforts, such as the "Silver Jubilee" and the "Coronation," are achievements of a very high order, not so much in the engineering sense as in showing Gresley's shrewd knowledge of what the travelling public wanted. The interior decoration used in the two trains just mentioned was most valuable publicity, as also were such innovations as the pioneer hairdressing saloon (1928), the provision of cocktail bars (1932), and the installation of wireless receivers (1932). In the same year shower baths were initiated in sleeping cars, and in 1933 the "tourist" stock served to attract the public to the many cheap-travel facilities then offered. Two years later, a cinematograph show was available to travellers, using 50-volt batteries. The general effect of these novelties, in addition to the excellent reputation enjoyed by the coaching stock in its own right, was to create an impression of luxurious travel which was unrivalled in this country in the 1930s. In addition, the very high speeds at which most of the L.N.E.R. main-line trains were scheduled, helped to retain much of the patronage that might otherwise have been transferred to the roads. Incidentally, the same high speeds also contributed to passenger safety by making it necessary to effect improvements in the braking equipment (for instance, the provision of quick-service application valves and of automatic slack adjusters), which otherwise might only have been incorporated gradually. Mr. Newsome's account of Gresley's achievements shows those eighteen years to have been a really great age, on which we can look back with not a little regret at its passing. We can also ask ourselves what the new administration may accomplish in a like period.

* * * *

American Railway Passenger Business

FOR the ninth successive year, the *Railway Age* has reviewed the development of railway passenger business in a special issue, dated November 15. The number contains 24 articles dealing with different aspects of passenger travel on the U.S.A. railways. The prominence given to streamliners is significant. An article entitled "The Nation's Streamliners" records that 18 luxury trains were placed in service during the 12 months under review and ran a total of 32,703 miles each day. These bring the number of named streamliners in the timetables to 103, comprising 214 sets of rolling stock. The trains vary in size from the three coaches of the "Cheshire," operated between Boston and White River Junction, B. & M., to the 20 vehicles of the "Lark," worked by the Southern Pacific between San Francisco and Los Angeles. The "Lark" is one of the diminishing number of streamliners hauled by steam locomotives, probably because it is made up entirely of sleeping cars.

* "The Development of L.N.E.R. Carriage and Wagon Design, 1923-1941," by Mr. N. Newsome, read before the Institution of Locomotive Engineers on March 10

The growing popularity of diesel-electrics is discussed separately. In the first eight months of 1947, diesels worked 22 per cent. of the locomotive-hauled passenger-train mileage, totalling 250 million. The railways did not place any orders for passenger steam locomotives in 1946—and contracted for only 10 in 1947. The builders of diesel-electrics received commissions for 169 in 1946 and for 102 in 1947. The number of diesel-electric locomotives used in U.S.A. passenger service at September 1, 1947, was 568, and at that date 146 more were on order.

The diesel is in the ascendant, provided that supplies of liquid fuel continue to be adequate. According to the *Railway Age*, there is little danger of petroleum resources failing; if they gave out, oil could be distilled from oil shale, of which the quantity is estimated at four or five times present proved petroleum reserves.

Apart from streamline coaches built since 1934, the U.S.A. railways have done little to replenish their stock of passenger-train vehicles. "Hardly a dent has been made in high obsolescence" is the annual's way of expressing the fact that 40 per cent. of the 39,300 passenger-train vehicles owned by the railways are over 30 years old. Only 12 per cent., or 4,745 vehicles, are less than 16 years old. On November 1, 1947, orders were outstanding for 3,026 vehicles. By that date only 800 of 2,600 vehicles ordered a year before had been put into traffic. Production was disappointing, largely because of circumstances beyond the builders' control. Then modern coaches in America have heavy adjustable seats, air conditioning, pressure ventilation, radio communication, electrical fitments and anti-wheel-slip devices, so that they are complicated machines which cannot be constructed quickly.

A long time may elapse before the average age of U.S.A. passenger rolling stock is reduced appreciably. The American railways, however, are fortunate in having a free hand to place orders as they choose, whereas the British railways, with a stock of some 56,000 passenger vehicles, are restricted by the Government to the replacement of 1,000 a year, though 20 per cent. are over 35 years of age and a building programme of about 3,000 vehicles a year would not be excessive for some time to come.

A similar story falls to be told about improvements to permanent way and structures. In 1946 the American railways spent $231 million on equipping their lines for high-speed working. Capital expenditure in 1947 for the same purpose is estimated at $286 million. Speed restrictions of long standing are being removed, grades are being eased and stations are being rebuilt to attractive designs. As already reported in our December 12 issue, the Government has decided that during 1948 our railways must be content with current maintenance of track and cannot overtake any war arrears, even though more speed restrictions may be necessary.

British long distance train services, once the best in the world, seem destined to remain indifferent for many years. The American railways have taken the lead in no uncertain fashion, but whether they will earn a return on their lavish expenditure is open to doubt. Their passenger revenue is only 11 per cent. of their total operating revenue and decreased by 28 per cent. during the first eight months of 1947, while freight revenue rose by 23 per cent. and was seven times as large. The *Railway Age* suggests that passenger traffic volume has held up better than freight, because passenger-miles for seven months of 1947 were 49 per cent. above 1929, and 67 per cent. over 1941, whereas ton-miles were only 46 per cent. above both these years. This might have been sound reasoning if ton-miles had been about equal in total to passenger-miles, instead of being in the ratio of 14 to 1 in 1929 and of 16 to 1 in 1941.

Going back to 1921, which was the peak for passenger-miles until the war year 1942, only eight ton-miles were worked for each passenger-mile. The 1946 ton-miles were 93 per cent. over 1921, but passenger-miles only 73 per cent. up. For 1947 the gap between these percentages will be wider and, as the annual reminds us, "rivals reach for the travel dollar." In September last, airline traffic was the greatest in history, bus carryings now exceed rail conveyance in volume and private motorcars are multiplying on the highways. On the strength of the evidence furnished by the annual itself, we venture to think that the American railways will continue to be predominantly freight carriers, however efficiently they operate long-distance passenger services.

Irish Transport Company

THERE was a decrease of £22,832 in gross revenue of Coras Iompair Eireann (Irish Transport Company) for the year ended December 31, 1947, in spite of an increase in the total tonnage carried. The report, which we have received from the Chairman, Mr. A. P. Reynolds, shows that the 334,709 tons extra of beet transported in the year had an adverse effect on the results, since this is a low-rated traffic, and over 150,000 tons of it should have been lifted in 1946. Not only did it cause the administration considerable trouble and expense, but, as a carry-over from the previous year, it brought no compensation and its transport actually contributed to the net loss of £912,353. Railway passenger train traffic earned a gross revenue of £1,611,632, which was a decrease of £77,841. On this side of the company's business, however, the number of passengers showed an increase of 830,650 for a reduction of 532,688 train-miles. The number of passengers carried per mile went up from 3·8 to 5·11. Receipts from passenger fares were £1,063,096, comparing with £1,152,723 in the preceding year, representing 1s. 11·03d. per passenger as against 2s. 3d. in 1946. This was due to the loss of long-distance passengers during the coal crisis, and the large increase of suburban short-distance travel during the strike of bus workers. Some results for the year are compared in the table below:—

	1946	1947
	£	£
Railway passenger traffic	1,689,473	1,611,632
Railway goods traffic	3,261,503	3,245,984
Miscellaneous	21,581	20,969
Bus services	2,528,852	2,321,295
Tramways	279,254	230,177
Road goods services	826,935	1,141,189
Hotels	240,757	254,277
Gross revenue	8,848,355	8,825,523
Expenditure	8,433,138	9,328,969
Net operating revenue	+415,217	−503,446

Revenue-earning railway mileage in 1947 totalled 5,289,406 miles, all other mileage amounting to 2,484,766; the total mileage in 1946 was 9,156,237 miles, so that the decrease in 1947 totalled 1,382,065 miles. Railway goods traffic produced receipts of £2,895,501 as against £2,830,828, the tonnage falling from 2,841,809 to 2,760,037. An increase of 20 per cent. in rates and fares came into effect in April last year. Road goods haulage earned a revenue of £1,137,392, an increase of £314,372, the tonnage rising by 159,283 tons. Like the railway, the road services were obliged to provide transport for a considerable quantity of beet at an inconvenient time of the year, and were it not for this factor the total tonnage would have shown a decline.

Out of the total expenditure of £9,328,969, by far the largest item was £5,479,520 for wages and salaries, being an increase of £667,690 on 1946 and representing 62·09 per cent. of the gross operating revenue. Wages paid to railway workers are almost 72 per cent. of the railway gross revenue and 60 per cent. of railway expenditure. Coal and fuel oil costs also were higher, and the railway spent approximately £80,000 on converting 97 locomotives to burn oil. These will be reconverted to use solid fuel as soon as the administration is satisfied that the coal position is stabilised. The additional cost arising from the use of oil-burning locomotives was just over £23,000. The report estimates the loss of gross revenue due to the coal crisis at £450,000, and to the strike of bus workers at £500,000.

Hotels Department receipts were £254,277, or £13,520 higher, but expenditure rose by £30,735 to £240,106. The report records the arrangement concluded with Gordon Hotels Limited under which hotels, restaurants, dining cars and catering are being managed by that company for a period of two years. All the company's hotels are being modernised at a considerable cost, and it is hoped that this policy will secure the continued patronage of home and foreign holiday-makers.

PRICE CUTS IN WELDED TUBES.—It has been announced by Tube Investments Limited that the prices of electrically-welded tubes, and all components and products made from them, have been reduced by 2½ per cent. as from March 15. The Chairman of the company, Mr. I. A. R. Stedeford, has stated that the cuts depend on there being no further increases in the cost of steel and other items in production costs.

LETTERS TO THE EDITOR

(The Editor is not responsible for the opinions of correspondents)

Livery of British Railways

Hove. March 6

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—I agree with the first two paragraphs of Mr. Kenneth Cantlie's letter in your March 5 issue, but assume that he does not object to the relettering of tenders in shops for repainting, or even those standing idle for a few days whilst their engines are undergoing minor repairs.

What does seem unnecessary in all cases, however, is to paint more than "B.R.," or one-seventh of "British Railways."

Mr. Cantlie's justification in his third paragraph seems sound, but not, I think, the only one. Our railways are, unfortunately, in public disrepute, and it surely would be good propaganda to encourage the man-in-the-street to take a greater interest in his newly-acquired property by letting him have a say in this matter. The companies consulted the travelling public on coaching stock details, so why not extend this much-appreciated policy to livery?

Yours faithfully,

F. S. BOND

[It has been announced by the Railway Executive, as reported in our February 20 issue, that eight trains in different liveries will tour the country in May this year, and that the comments of the public will be invited.—ED., *R.G.*]

The Rome Underground Railway

"Dale View," 16, Box Ridge Avenue,
Purley, Surrey. February 23

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—May I enlarge on the opening paragraph of your report on the Rome Underground on page 214 of your February 20 issue, having made a very careful study of the Italian railways throughout the war and since.

Ostia is already served by the Rome-Ostia Railway, a first class private concern which has been very rapidly and efficiently rehabilitated since the cessation of hostilities. The Rome Underground (which was in fact almost completed before Italy entered the war) runs from the Rome Termini Station of the Italian State Railways, under the Via Cavour and the Coliseum, rising to the surface near the Rome-Ostia Railway terminus; and then, after running parallel with that line for about a mile, branches away to the left (or east) to the 1942 exhibition buildings, which were almost completed and where a special terminal station had been built. The exhibition buildings are only approximately three miles out of the city, and not of course at Ostia, as your article tends to suggest.

Yours faithfully,

R. A. SAVILL

Diesel *v.* Steam Locomotives in the U.S.A.

52, South Burnet Street,
East Orange, N.J. March 6

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—As a former marine engineer and steam locomotive adherent, I am a regular reader of *The Railway Gazette*. Since the brotherhood of steam locomotive enthusiasts is a really international body, I am writing to you today for assistance, in the shape of readers' comments on the diesel craze of our American railroads. I enclose two clippings of letters to the editor, taken from the *New York Times* issues of February 18 and March 5, 1948, which have a direct bearing on the diesel *versus* steam controversy. In the absence of advertisers' pressure, your paper, which is read wherever there are railroads, commands a respect which reaches far beyond the borders of the British Isles. Therefore, it is high time that your editorial columns were opened to your readers for a truly democratic discussion of the merits or otherwise of the oil-burning diesel locomotive.

For the benefit of your readers, I will cite the following personal experience I had, during my recent travels on the New York Central Railroad, when a very severe cold spell hampered transport. When changing engines at Harmon, there appeared an old "J" class coal-burning steam locomotive, piloted by one of the latest two-unit diesels. The 15-car train formation surely was not beyond the tractive effort capacity of the diesel. I was told by a member of the train crew that the steam engine was used solely to heat the train, as a diesel could not heat more than 10 cars. It takes approximately 300 lb. of steam per hr. to heat the average American car under normal winter conditions. A 16-car train therefore will use some 86,000 lb. of steam on a New York to Chicago trip. Bunker "C" oil will evaporate at least 13 lb. of steam per lb. of oil fired. The heating oil consumption therefore would amount to 830 gal. (U.S.).

The acute fuel oil shortage compelled many users of fuel oil to pay exorbitant black market prices, and I am told that the New York Central System had to pay 18 cents per gal. Thus a fuel bill of $141·10 for train heating alone has to be carried by the diesel. The coal-burning "S" class engines use about 140 lb. of coal per mile, including train heating. The coal consumption for the generation of some 86,000 lb. of heating steam on a New York to Chicago trip would be around 6 tons, which at current prices would cost the carrier about $36·00. The diesel fuel oil consumption for the same trip amounts to approximately 2 gal. (U.S.) per mile. The cost is anywhere near 9 to 11 cents per gal. The fuel specifications for the diesels require a very high cetane rating, which naturally jacks up the price more and more.

When it is considered that the present-day replacement value of the "Niagara" type engines is somewhere near $300,000, compared with $600,000 for a diesel of equal power, the question arises: "What gives? Who gets what?" Is it that the ornamental value of lacquered tinplate is worth that much to the brass hat, who decides to spend other people's money? In the name of sanity, a New Look Super Beyer-Garratt engine, with an all-enclosed chassis, with double-end control, could easily be built to provide the same sort of "sex appeal." There is a lot of squawking on the part of railroad engineers on account of bad coal and restricted ashpan capacity of the conventional steam locomotive. In my wartime travels I have had the opportunity to see Garratt steam locomotives, and it is a disgrace of the first order that our ossified banker-controlled brass hats never even gave this type of locomotive the chance it deserved. I sincerely hope that your readers will enter into this controversy of oil *versus* coal, which has a truly international significance in the light of the fast-dwindling oil reserves.

Yours very truly,

RUSSELL BARTHOLOMEW,
Former First Engineer, U.S. Merchant Navy

Indian Collieries' Wagon Requirements

E.I. Railway House,
Calcutta. January 21

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—On page 640 of *The Railway Gazette* dated December 5, 1947, it is stated, according to a memorandum prepared by the Indian Mining Federation and the Indian Colliery Owners' Association, that: "Against a normal stock held by the collieries of only one million tons, it has mounted to 2½ million tons and is rising daily. The average daily number of wagons adequate to carry the entire output is 32,000, against which the available supply is of about 2,000 wagons daily." The figure 32,000 appears to be high; presumably it was intended to read "3,200."

Yours faithfully,

B. C. MALLIK,
Public Relations & Publicity Officer
of Calcutta Railways

Large Metre-Gauge Locomotives

5, Vernon Rise,
Greenford, Middlesex. March 2

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—Homer still occasionally nods, and no one will grudge him his nap in your note on page 151 and article on page 165 of your February 6 issue, while his pen ran on of its evil self to record that the Bagnall-built 2-8-2 locomotives for the Tanganyika Railway "are among the largest of all metre-gauge locomotives." Actually they are very, very far down the scale.

Among British-built metre-gauge non-articulated engines, one may recall the numerous 4-6-2 engines built for the Federated Malay States Railways by Beyer, Peacock, and the North British Locomotive Co. Ltd., weighing 115½ tons with tender (against the 98¼ tons of the Tanganyika 2-8-2), and having a tractive effort at 85 per cent. boiler pressure of 24,470 lb. (against 23,650 lb.).

Foreign-built locomotives provide an even greater refutation. The Henschel 2-10-2 engines for the Sorocabana Railway weigh (locomotive alone) 92 tons, and the engine plus tender combination scales 134 tons; the tractive effort at 50,500 lb. is over twice the Tanganyika value! Even these figures are exceeded by other 2-10-2 engines on the same line, which weigh 98½ tons (locomotive alone) and 141 tons (engine and tender), and have a maximum tractive effort of 50,000 lb.; 75-ton engines of the same wheel arrangement, with 44-ton tenders, run on the Iquique-Pintados line in Chile.

Engines of the 2-8-2 type built over 15 years ago for the Rio Grande do Sul have the same weight and axle load as the Tanganyika machines, but have a tractive effort 8 per cent. greater; 2-8-2 engines for the Villazon-Atocha line in Bolivia weigh 75 tons for the locomotive plus about 40 tons for the tender, and have 31,900 lb. tractive effort. Even in pre-1914 years, Hunslet and the North British Locomotive Co. Ltd. were building 2-8-4T engines weighing 85 to 86 tons and having tractive efforts 14 to 23 per cent. greater than the new Tanganyika engines.

But enough, enough! Six small locomotives for East Africa have created sufficient stir!

Yours faithfully,
J. M. ATKINSON

No "K" in Macintosh?

2, Campbell Court, Hanwell,
London, W.7. March 5

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—Why do the dictionaries insist on putting a "k" in "macintosh" when everyone uses "mac" without one? Aberdeen's City Librarian has stated why "macintosh" is correct; it comes from the Gaelic "Mac-an-toisich" (son of the chief). Yet I see that the latest dictionary repeats the error of the others, the oddest being the "Oxford Dictionary" itself, which has it both ways, thus: "Mackintosh, n. Waterproof material of rubber and cloth for garments esp. that patented by C. Macintosh (d. 1843)".

Yours truly,
C. MACINTOSH

[Our correspondent's timely simplification of a disputed question is at variance with the numerous allegedly authentic spellings reproduced on the "Scrap Heap" page of our February 27 issue.—ED., *R.G.*]

Suggestions for Improving Holiday Travel

23, Somertrees Avenue,
London, S.E.12. March 3

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—You published in your issue dated February 13, a very interesting article on "Holiday Traffic, 1948, and After." May I add to it a few further suggestions, prompted by the conditions at London termini on Saturday, July 27, 1947.

The advertised departures from London on summer Saturdays do not begin sufficiently early. Whatever the difficulties of early morning transit across London, crowds do contrive to reach the stations at a very early hour. There would be little or no risk of light loading if Saturdays-only long-distance trains were advertised to leave from, say, 7 a.m., and in many cases it would be possible for the stock to make a double trip in the day.

The Great Western, if my memory serves, advertised a Torquay departure at 7 a.m. on July 27, but although the Southern commenced its advertised Bournemouth services at 7.30, timetable departures to the West were grouped around 9 a.m., and there were hardly any early departures to the North. There is no reason why the 10 a.m. trains, and their duplicates, should be the earliest Saturday departures for Scotland, and early morning trains, now absent from the timetables, such as the 7.25 a.m. from Kings Cross and 7.30 a.m. from Paddington, should re-appear as Saturdays-only trains. The same applies, of course, to the big provincial centres.

On Saturday afternoon and evening, all long-distance trains into London should make a setting-down stop in the suburban area to relieve the termini. Time on journey, on a summer Saturday, is unimportant, and delays outside London are frequent in any case. Stratford and Tottenham, Finsbury Park, Kentish Town, Watford or Willesden, Harrow, Ealing, Clapham Junction, New Cross, and Herne Hill all suggest themselves as suitable distributing points.

Earlier holidays, and mid-week travel, are very old propositions, but, even with a substantial financial inducement to the passenger, the difficulty of mid-week letting of accommodation at popular resorts still would have to be overcome; and, save perhaps in the case of Addison Road, the starting of outgoing trains from suburban stations might be a difficult matter, and result in passengers still flocking to the termini they were accustomed to use.

Yours faithfully,
R. E. CHARLEWOOD

Central Line Train Services

3, Kenway Road, Earls Court,
London. March 3

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—With reference to the correspondence on breakdowns and congestion on the Central Line, it is admitted that the rolling stock might be old, but a few months ago London Transport gave quite a lot of publicity to the reconditioning of the rolling stock stored out in the open during the war.

I think part of the trouble is that the Central Line has overgrown its strength. I do not think any further Underground extensions should take place unless something is done to increase the capacity of the lines in the centre of London, especially in the West End. I think that if the money spent on the eastern extensions of the tube had been employed on modernising the L.N.E.R. Ongar line, the public would have been better served. The modernisation could have been electrification, or a re-equipped steam service as found in Paris before the war.

To support my view I quote the following paragraph from the January *Railway Observer*:—

"From Woodford L.P.T.B. trains run every 4 minutes in the business peak hours, 7½ minutes in the middle of the day, and 10 minutes after 7 p.m. (3 p.m. on Saturdays) and throughout Sundays. Newbury Park has a similar service.

"Overcrowding' is, of course, inevitable, as the seven L.N.E.R. suburban trains leaving Liverpool Street for Woodford or beyond between 5 and 6 p.m. in April seated over 6,000 people, whereas fifteen seven-coach L.P.T.B. trains can seat only 4,230 (the figure for eight coach trains is 4,680)".

Yours faithfully,
J. COUSINS

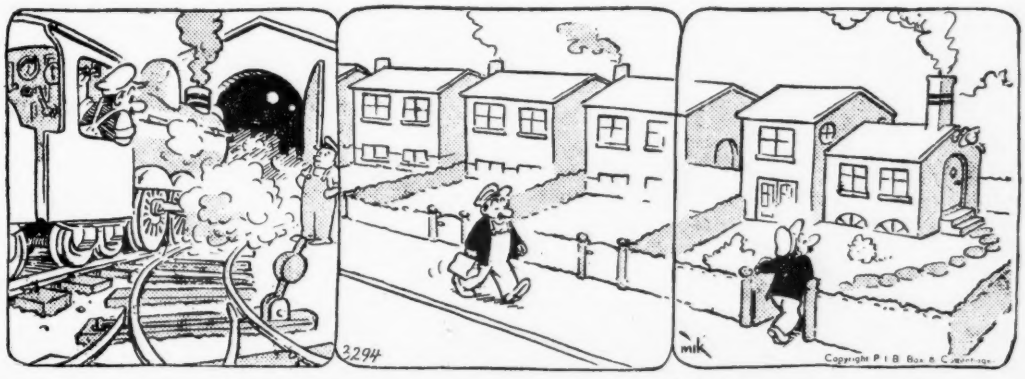
Artistic Licence in Trackwork

Palestine Railways & Ports Authority,
Haifa. February 17

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—The enclosed is one of the daily strip cartoons which are appearing under the heading "Ferdinand" in the *Palestine Post*, which is the leading newspaper in the country. The strip is amusing in itself, but railway readers will be particularly interested to see the artist's conception of a track turnout in the first picture.

Yours faithfully,
A. F. KIRBY
General Manager



Episode from a comic strip cartoon in the "Palestine Post"

The Scrap Heap

Russia Misses Railway Targets

Pravda reported recently that the Soviet railways were 600,000 roubles (£27,000 at the official rate) short of the estimated profits in the first two years of the post-war five-year plan. The railways used 1,000,000 tons of coal above the estimated quantity. *Pravda*, criticising the inefficiency of railway maintenance work, said that some transport chiefs suffered from self-complacency because of a comparatively mild winter.

* * *

100 YEARS AGO

From The Railway Times, *March* 18, 1848

GRIMSBY DOCKS.—The line of Railway from New Holland to Grimsby being now opened, easy access is obtained by it to that port from Hull; and the Directors of the Manchester, Sheffield, and Lincolnshire Railway, believing that it would be a gratification to the Shareholders to inspect the dock works at Grimsby, have resolved to grant a Free Pass from Hull by their Steam Packets across the Humber to Grimsby, and back to Hull, to such Shareholders as may apply to the Secretaries, either at Manchester or Sheffield, personally or by letter, after the 27th inst., by which time passes will be ready for delivery. These passes will not be transferable, but will free the parties to whom they are granted on any one day during the month of April. The Directors hope that the Shareholders will avail themselves of the opportunity of thus becoming acquainted with the value of their property, which the Directors are confident only requires to be seen in order to be duly estimated.

By order,
James Meadows, Secretary.

* * *

Changing Viewpoint

"This country has £1,000,000,000 of public money invested in its transport undertakings, and the railways must always be kept in a state of efficiency."—*Mr. Alfred Barnes at the Mansion House Association on Transport luncheon last week.*

The amount of private capital invested in the four main-line railway companies before January 1, 1948, was £1,100,000,000. The Government was not so solicitous then for its preservation and remuneration.

* * *

Voice of Authority

The Newcastle to Liverpool express slowly drew up alongside Huddersfield Station platform; the grey-haired driver climbed down to stretch his legs, grinning genially at the small boy, who, with notebook and pencil, was busy recording the name and number of the huge locomotive.

A few minutes of hurry and bustle, a banging of doors, a shrill whistle and a waving green flag far down the platform, and the driver remounted the footplate, winking at the boy as his hand moved to the starting lever. The boy looked up at the driver and airily waved his arm in the direction of Manchester. "Take it away, Ramsbottom," he said.—"*Northerner II*" *in "The Yorkshire Post."*

* * *

Paper Saving: The Power of Example

A reader reports that recently at the Glasgow office of British European Airways he bought a return ticket to Dublin.

The ticket is a book, measuring more than eight inches each way, bound with four clips, and containing nine sheets, six with carbon backing, one gummed, one plain, and one coloured, the total area of paper being four square feet, fifty-one and a half square inches.

Is there really a shortage of paper? he asks.—*From "The Glasgow Herald."*

Received from a Government department: a large, new and unused, gummed envelope, sealed with a sheet of gummed paper bearing the inscription, "Economy Label."

* * *

A Railway Fan Diehard

The Editor of our contemporary, *The Railway Magazine*, recently received the following letter:—

Chase End,
Walton-on-Thames.
March 2

Dear Sir,—I was very aggrieved to see that in the latest *Railway Magazine* the regional names of the nationalised railways appeared in many places. I fail to see that, since the book is purchased almost entirely by railway enthusiasts, it should be necessary to use these terms.

Although perhaps many readers are politically socialists, I am sure that in many cases they will be sorry to notice that even this book has turned Labour, and talks of Southern Region and such-like.

Nearly every day we see or read something about the regional workings of trains, or advertising spaces full of British Railways this and British Railways that. Every railway lover is fed up with it, and to see their pastimes nationalised is a very saddening thing, especially for one who loves trains as I do.

Do let us keep some memories of those happy years when the four main line companies served us faithfully and well. They have gone for ever, but memories may be allowed to live, if only politics may be forgotten in this magazine.

Yours sincerely,
J. B. Greville

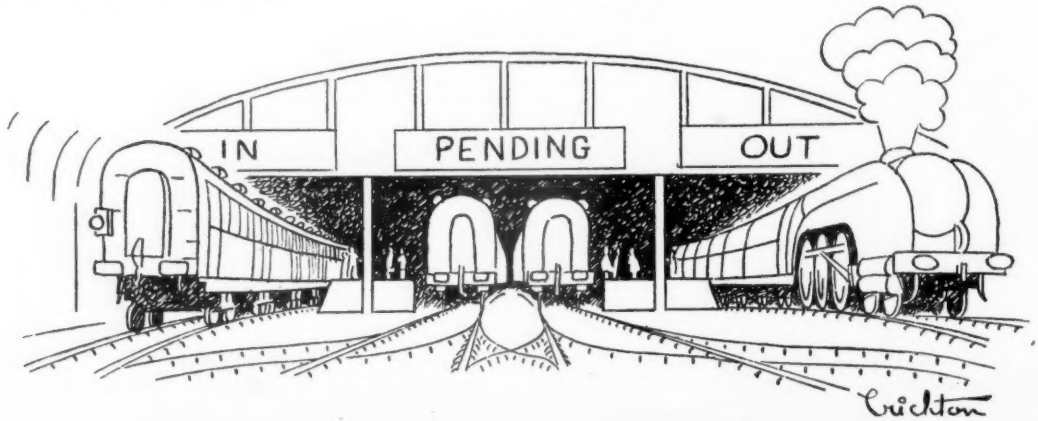
Crossword Compartment

Railway passengers—owner-passengers they ought really to be called—will have noted with interest and appreciation the suggestions for improving their lot recently made by Messrs. Barman and Bennett to the Institute of Transport. These officials drew a picture of trains, so clean that they glittered like Cinderella's coach, steaming punctually into stations through the elegant waiting-rooms of which soft-footed attendants glided with trays of sumptuous viands. Reluctantly disengaging themselves from the adjustable seats in which a book from the train's library and a whisky and soda from its bar had helped to beguile the tedium of their journey, the passengers would alight. . . .

With the possible exception of the notorious reactionary Emett, everyone will agree that these overdue reforms are a splendid idea. They may appear to us—as we sit wedged together in a carriage whose third-class rating has become a matter of courtesy, and old-world courtesy at that—somewhat Utopian. . . . All the same we like to ponder on these flights of fancy, for much the same reason as we used to enjoy reading Jules Verne.

The proposal that deserves to make the most general appeal—and which incidentally would be the easiest and cheapest to carry out—is the proposal to give non-talkers, and the doers of crossword puzzles, the rights of sanctuary already enjoyed by non-smokers. However short we may be of rolling stock, it would surely be practical—and it would certainly be humane—to allot a certain number of compartments to those who for one reason or another wish to forgo the delights of general conversation while travelling by train. . . .

He would not care how his asylum was labelled—"Non-Talkers," "Ruminants Only," "Coventry," what you will—so long as it was bore-proof. He would not even mind having to apply to the Transport Board—and this is a development most likely to occur—for a priority which would entitle him to a seat in it; he would gladly answer, in triplicate, such questions as "State purpose(s) for which deconversationalised accommodation is required" or "Did either of your parents (if not still alive) die of boredom?" All he wants is not to have either to pretend to listen or to pretend not to overhear. *A Streetcar called Desire* is the title of a highly successful play on Broadway; a railway carriage called Silence would be crowded out for as long as it chose to run over here.—*From "The Times."*



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OVERSEAS RAILWAY AFFAIRS

(From our correspondents)

SOUTH AFRICA

Operating Loss in November

During November, 1947, a loss of £274,910 was incurred in the operation of the railway, harbour, steamship, airways and aerodrome services. The total revenue from all services was £6,793,746. Expenditure, excluding net revenue appropriations, amounted to £6,998,983. The only services to show a surplus of revenue over expenditure were harbours and airways.

Central Training College

The progress being made with the buildings at Esselen Park for the Central Training College will enable 100 additional students to be trained there as from the present month. The total accommodation at Esselen Park and at the temporary school in Kroonstad does not provide for all the trainees required by the railways, but the extra accommodation to be released will assist materially in increasing the output of trained railwaymen in several grades.

Railway Budget, 1948-49

In presenting his first railway budget as Minister of Transport, Mr. S. F. Waterson included a statement on the objects and work of the recently-appointed Rates Inquiry Committee (see *The Railway Gazette* of October 24, 1947). The Minister said that the committee, consisting of Sir Charles Newton and two South African economists, would not be concerned with Government policy, nor with the financial relations between the Union Government and the South African Railways. It would inquire into and make recommendations on the system of rates and charges applied to transport services; the cost structure, and traffic conditions as far as they affected the principles underlying railway rating policy; the incidence of rates and charges on the national economy; and the extent to which modification, amendment or alteration of the principles and policy in relation to rates, charges, and methods of rating was justified.

The Minister stated that on the commercial side, the outstanding feature was that while labour and commodity costs had risen steeply, and while operating and maintenance charges had reached new high levels, South African Railways charges had been kept well within bounds. Passenger fares had been increased by only 10 per cent. since the beginning of the war, and goods tariffs by approximately 20 per cent. The South African railway user paid less for his transport, if the cost thereof was considered relative to the price of general commodities, than he did before the war.

Heavy Traffic Movement

Mr. Waterson said the traffic position could be summed up in a few words. Gross tonnage hauled was 49,913,333 tons in 1946-47, being an increase of 14,031,455 tons over 1938-39—equal to 38 per cent. Train- and engine-mileage increased in the same period by 20,920,307 miles—equal to 26 per cent.; but the number of engines in service increased by only 4 per cent.

In 1947 the railways carried more than 240,000,000 passengers, or an average of 665,000 every day, as compared with a daily average of 260,000 in 1936. The gross tonnage of all traffic moved increased to 49,913,333 in 1946-47 from 32,155,402 in 1936-37, while for the first six months of the current financial year the total of 26,123,521 tons indicated that the 50,000,000-ton mark would be exceeded for the first time in South African railway history.

The total revenue expected from all sources in the financial year 1948-49 was estimated at £81,504,000. The appropriation account would show a net surplus of £317,000. It was essential, however, to allocate £500,000 from the appropriation account as a contribution to the betterment fund, and this made it necessary finally to budget for a deficit of £183,000.

RHODESIA

New Native Wage Scales

The General Manager of the Rhodesia Railways has stated that the improvements in the service conditions for Africans promulgated by Government regulation on January 1 (see *The Railway Gazette* of February 6) will cost the railways an extra £200,000 a year, and represent an increase of about 50 per cent. in the wages for native labour.

First Board Meeting in Bulawayo

The first meeting of the newly-appointed Board of Directors of the Rhodesia Railways has been held in Bulawayo, thus moving control from London to the Colony. This is an interim step pending the passing of the necessary legislation for the establishment of a statutory board to administer the railways, with a "higher authority" responsible for broad policy. The first ordinary general meeting of shareholders of the Rhodesia Railways was held in London in July, 1899.

One immediate result of the transfer of control to Rhodesia is that the Rhodesia Railways will no longer be liable to income tax in Great Britain, thus saving approximately £153,000.

Recent Working Results

During December, import traffic *via* Beira for the Rhodesias totalled 48,946 tons, the highest figure since the record total of 59,902 tons in September, 1947. The aggregate cargo handled at the port in December amounted to 145,761 tons, the highest since February, 1942. Total earnings of the railways for the eight months ended November 30, 1947, were £5,626,043. Gross operating expenditure was £4,329,444, giving a net operating revenue of £1,296,599, or £176,881 less than during the same period of the previous year.

Beira Cargoes Banned

Coincident with news of remarkable improvement in the railway position at Beira, advice was received that certain well-established shipping companies had taken the drastic step of banning cargoes for the port. Mr. P. E. Millbourn, of the British Ministry of Transport, has completed an investigation of the position, and a quick resumption of normal shipping is expected. Meanwhile the railways are moving more than 10,000 tons a week to the Rhodesias, and approximately 1,500 tons are taken weekly by the Trans-Zambesia Railway for Nyasaland.

The General Manager of the Rhodesia Railways has stated that, providing the present rate of off-take is maintained, there should not be a recurrence of congestion on the railway side of the port working. Ship detentions, however, have not been due entirely to railway difficulties. An important factor has been lack of co-ordination between railways, port consignees, consignors, and shipping companies, resulting in overloading of the port, bunching of ships, and consequent congestion. It has been stated officially that the Portuguese Government hopes, with the help of Great Britain, to raise capital to expand the port.

INDIA & PAKISTAN

Indian Railway Budget Speech

While presenting the railway budget for 1948-49 in the Dominion Parliament, the Indian Minister for Railways informed the House that the revised estimates for the seven and a half months ending March 31, 1948, showed a fall in earnings of about Rs. 8 crores as compared with the budget estimates presented in November, 1947 (see *The Railway Gazette* of January 9). The fall had occurred in both goods and passenger earnings, but other coaching earnings, such as parcels traffic, had shown an increase. On the expenditure side, too, there was a drop from Rs. 99 crores to Rs. 93·5 crores. The result of this drop in earnings and in working expenses was an increase in the estimated net loss from Rs. 2·75 to Rs. 5·2 crores. This had depleted the reserve fund, which now stood at Rs. 3·8 crores.

Estimates for 1948-49

For 1948-49, gross traffic receipts and working expenses were expected to be Rs. 190 crores and Rs. 147·15 crores. After allowing Rs. 11·11 crores for depreciation and Rs. 1·5 crores for payment to lines that were worked on behalf of outside concerns, the net traffic receipts were estimated at Rs. 30·22 crores. Earnings of Rs. 2·18 crores from miscellaneous sources would increase this figure to Rs. 32·40 crores.

Interest charges, at 3¼ per cent., were expected to amount to Rs. 22·53 crores, leaving a net surplus of Rs. 9·87 crores for 1948-49. A parliamentary committee was appointed to recommend how this surplus should be disposed of, and it has now been decided that Rs. 4·5 crores will go to the railway reserve fund, a similar sum to the general revenues of the country, and the balance of Rs. 87 lakhs to the betterment fund.

Additional Rolling Stock

The number of general service wagons scheduled to be delivered by manufacturers in India by the end of 1948 was 4,050. In addition, tank wagons numbering about 150 would be delivered by the end of the year. An order had been placed in Canada for oil tank wagons, which were expected to be delivered by March, 1949. Similarly, 146 new locomotives were awaited for delivery during 1948. That, with the improvement which was noticeable in the workshop position, would relieve the locomotive power situation greatly. Further improvement in the railway situation was expected from the diversion of some of the heavy traffic between Calcutta and Bombay to the sea route, which was made possible by a strengthening of the shipping position.

As regards passenger traffic, the Minister expected a little easing of overcrowding. Due to shortage of buses, there was a

steady increase in short-distance third class passengers. Unless the bus position was restored, the steadily-decreasing average distance travelled by passengers would continue. Rolling stock additions to be made on the coaching side in 1948-49 included 350 new coaches, and 400 expected to be returned by the Defence Department.

CANADA

Restrictions on Use of Wooden Stock

The Board of Transport Commissioners on February 2 issued an order requiring that all wooden coaches be placed at the rear of passenger trains on Canadian railways. A board spokesman, recalling that the commissioners had recommended that railways dispense with wooden coaches as quickly as possible, said that until that could be done, the order was designed to prevent telescoping of wooden coaches in the event of head-on collisions.

The ruling also said that a car with a steel underframe would not be considered a wooden car, and that no wooden mail, parcels, or luggage car occupied by any person should be placed between the locomotive and steel equipment, or between other steel units, in the make-up of any Canadian passenger train.

The order made no mention of recent Canadian railway accidents, but it will be recalled that after its investigation of the Dugald collision (see *The Railway Gazette* of November 21, 1947) the board recommended Canadian railways to dispense with wooden coaches as soon as possible and acquire all-steel equipment.

EIRE

Faster Rail Travel Planned

Preparation of the C.I.E. railway timetable for the summer period, based on better coal and higher speeds, is now proceeding. Journeys will take very much less time than at present, and schedules close to those of pre-war days may be expected.

The principal daily train to Cork from Kingsbridge, for instance, is expected to be within 15 or 20 min. of the 1939 timing; and important improvements are expected to be made with all main-line trains. Variation in journey times as between the new timetable now being drawn up and that of 1939 will range roughly between 10 min. and 30 min. Pre-war speeds will be restored as rapidly as fuel supplies and the condition of locomotives permit; and these speeds will be improved on as new locomotives now on order become available.

Improving Coal Position

The present fuel position is that current supplies are showing a useful and increasing proportion of better quality coal, such as C.I.E. has not had for several years. But even this better quality coal, supplied against quotas fixed by the authorities in Britain, falls short by about 16 per cent. on a performance standard of the coal obtained by competitive tender in the pre-war years. A great deal of the fuel available to C.I.E., also, is still of the lowest grades, and this has to be mixed with the better fuel, so reducing the average quality.

A further unfavourable factor is the increased age of locomotives and their poor condition, due to wartime inability to carry out normal maintenance and renewal.

Reconversion has begun of locomotives which, designed to burn first-grade coal, had to be converted to oil-burning as a temporary expedient due to the inadequate supply and generally low quality of coal during the emergency years.

DENMARK

Underground Proposals for Copenhagen

Surface traffic in Copenhagen has increased to such an extent that it may be taken as certain that part of it must be diverted underground. Possible routes for underground railways are now being discussed by committees.

In 1947 a thorough investigation was carried out into the origin and destination of all passengers on the city tramways, and during last summer many trial borings were made to find out how deep the underground railways should be placed with reference to the water level and the nature of the subsoil.

Publications Received

South African Railways: Report of the Overseas Mission (1946). Johannesburg, 1947: South African Railways & Harbours. 12½ in. × 8 in. 143 pages. Printed in English and Afrikaans. Price 12s. 6d.—In 1946, a mission from the South African Railways & Harbours, headed by Mr. D. H. C. Du Plessis, Chief Harbour, Shipping, and Development Manager, Johannesburg, made an extensive overseas tour to study transport practice in other countries. A full report of the mission has now been published, and in addition to the Chairman's own comments, conclusions, and recommendations, includes a number of sections contributed by specialists on electrical, road transport, commercial, signalling, locomotive, rolling stock, operating, and harbour matters. Before the publication of the report, a short outline of his impressions was given by Mr. Du Plessis in a speech to senior officers of the S.A.R. & H. administration earlier last year, as reported in our March 14, 1947, issue. We hope to deal with the report in more detail in a forthcoming issue.

Locomotives des Chemins de fer Français: A Vapeur, Electriques, Diesel-Electriques et Autorails. (Locomotives of the French Railways). Preface by Paul Legregeois. Paris 17e: Editions P.P.C., 39, Bd. Berthier. 6½ in. × 6 in. 71 pp. Paper covers. Price fr. 250.—In a booklet of this size it was not possible to give a complete catalogue of all the locomotive types at work on the S.N.C.F., and consequently, it has been necessary to exclude passenger machines smaller than a 4-6-0, and goods types smaller than a 2-8-0. The booklet, which gives general dimensions and other brief particulars of various locomotive types, together with an illustration and line drawing in each case, is not restricted to the steam locomotive, and includes electric and diesel-electric locomotives, and a number of railcars. The production of the booklet is attractive, and it should be valuable both for reference purposes and as a survey of current French locomotive design.

Locomotives Old and New: Some of the Engines built by the L.M.S. and its constituent Companies, 1829-1947. Obtainable from the London Midland Region (Advertising & Publicity), Euston House, N.W.1. 9 in. × 7 in. 63 pp. Fully illustrated. Paper covers. Price 2s. 6d.—Nearly sixty locomotive types are illustrated in this survey of motive power on the L.M.S.R. and its constituent companies, commencing with the *Rocket*, and extending right up to the new main-line diesel-electric, No. 10000. There are also outline diagrams given with the more modern locomotives, and principal dimensions are included in all cases.

Welding on the Railways. — The October-December, 1947, issue of *The Welder*, published by Murex Welding Processes Limited, Waltham Cross, Herts., consists entirely of a series of articles showing the many applications of welding to railway work. These articles, illustrated by diagrams and numerous excellent photographs, describe, among other things, the fabrication of tank locomotives by arc welding, electric arc welding in railway workshops, welded steelwork for prefabricated railway stations, wagon frames fabricated by arc welding, etc. There is an introductory article by Mr. R. N. Thompson, Editor, *Welding*, who shows how British main-line railways realised the possibilities of welding from its earliest days, and there is an article by Mr. W. K. Wallace, then Chief Civil Engineer of the L.M.S.R., who deals with the applications of welding in structural engineering and permanent way work. Also included are brief contributions by the chief mechanical engineers of all the former main-line railways and the L.P.T.B.

The Smiths of England.—The elaborate production of this brochure and the delicacy of the instruments and equipment illustrated hardly suggest the smith, with whom the publishers, S. Smith & Sons (England) Ltd., seek to associate themselves. However, if the designation clocksmith be admitted to the language, the firm can claim direct descent from a Smith, who was also a smith, with a jeweller's shop in London. His grandson is now Chairman & Managing Director of an organisation comprising four main divisions manufacturing clocks, motor accessories, aircraft instruments and industrial instruments, themselves controlling twenty companies.

Signal Service.—One of the best advertisements for British industry is a record of wartime achievement, which still has power to raise admiration overseas. Publications such as this, which tells the story of battery production by Pritchett & Co. Ltd. and E.P.S. Co. Ltd. and Peto & Radford between 1939 and 1945, do, therefore, fulfil a definite function in the post-war world. If they are circulated overseas the manufacturer's natural impulse to tell the world of the achievements of his staff and workers can bring Britain goodwill—and the orders and foreign currency which follow from it. This organisation, typical of many, increased output fourfold during six years, simultaneously contending with air raids, factory and office removals and labour shortage. Its laboratory staff found time, without relaxing in its routine work, to seek a substitute for wood-separators between accumulator plates and developed Porvic, a porous, plastic material. This invention received official approval and involved the factory in yet more work when its use was standardised in a large range of batteries.

British Transport Commission—Railway Executive

A description of the development of the organisation and its administrative operation

THE setting up of the new railway organisation under nationalisation to replace the old company systems had to be effected in little more than three months. The Transport Act received the Royal Assent on August 6, 1947, and provided for the vesting of the railways in the British Transport Commission on January 1, 1948. The appointments of the Chairman and members of the British Transport Commission were announced by the Minister of Transport on August 8. The appointment of Sir Eustace Missenden as Chairman of the Railway Executive was made known on August 20, and of the members early in September.

Because certain of the members were absent abroad, and for other reasons, it was not possible to commence meetings of the Railway Executive immediately, and in the result the whole of the preparatory work had to be compressed into little more than two months. In view of the size and complexity of the British railway industry, this presented problems inseparable from work undertaken under pressure and, no doubt for this reason, the present set-up was devised as an interim organisation and may require modification in the light of experience.

In the late Autumn the Executive met to consider what the approach should be to the solution of the problem presented to it of taking over and administering as a unified whole the railway systems of the country. In large part it was necessary to consider the problem from the beginning, for all the guidance that members of the Executive had before them was the Act of Parliament and a general directive from the British Transport Commission, which was developed in discussion between the two bodies in arriving at the final principles to be incorporated in the initial organisation. To these, of course, were coupled the experience and training of the members of the Executive and the small staff of railway officers who were called in to assist.

Not the least of the disabilities under which a start had to be made was the fact that office accommodation had to be found, and for a time it was necessary to work with very few facilities.

Regional Organisation

One of the first decisions taken was that the railways should be organised in regions. It followed from this that new organisations had to be established, and introduced in stages so that there should be no dislocation in the public services or current business of the railways. The initial regions were then settled, and it became apparent immediately that the most difficult task would be to set up a single region for Scotland, where 74,000 persons are employed on the railways and where it would be necessary to fuse two separate railway systems and sever them for administrative purposes from their English lines. The preparation of the Scottish scheme was begun late in October.

Similarly, the separation of the old London & North Eastern Railway system in England into the Eastern Region and the North Eastern Region made necessary the formulation of a modified organisation, although not requiring so much detailed work as in the case of Scotland. Finally, towards the end of the year the new set-up was settled. A complete code of instructions was prepared for each of the regions laying down the duties and functions of the principal officers. A new standard practice had to be created for dealing with the wide variety of matters which hitherto had been the responsibility of the railway directors.

Contemporaneously, the Railway Executive commenced an investigation on the numerous joint lines, minor railways and worked lines which were to be absorbed into the various regions on January 1, and talks were opened with the London Transport Executive to settle the absorption into one Executive or the other of those lines in which the L.P.T.B. was concerned with the main-line companies.

A survey was made of the British railway interests in Ireland and arrangements for covering the Northern Counties Railway of the L.M.S.R. were settled.

In December, after the appointments of the Chief Regional Officers were settled, the Executive and the Chief Regional Officers consulted on the Regional plans which had been made, and on the arrangements for implementing them. As a result of these discussions the complete scheme for application from January 1 was settled.

General Principles

The general basis on which the Regions were organised was as follows:—The Chief Regional Officer for each of the regions assumed responsibility for general administration within the policy and general instruction of the Railway Executive. The objective sought was to make the various changes involved as smoothly as possible and to avoid dislocation of the public service. It was recognised that in several respects the arrangements made would have to be of an interim kind. To this end it was laid down as a general principle, that each region would be organised on a basis which would enable matters local to the region and coming within the sphere delegated by the Railway Executive to the Chief Regional Officers generally to be disposed of quickly at the regional level. The regional departmental officers maintain ordinary day-to-day contacts with one another but meet under the Chief Regional Officers as Chairman. The C.R.O. has a co-ordinating function and has authority to enable him to ensure the settlement of local questions, leaving only matters of general principle and general policy to be carried up to the Railway Executive.

Chief Regional Officers

The main responsibilities and functions of the Chief Regional Officers are the co-ordination of the departments at regional level. Instructions may be given direct to the regional departmental officers by the member of the Railway Executive concerned, just as reports may be made direct by the regional departmental officers to the appropriate member of the Railway Executive. There is the duty, however, of the C.R.O. to secure that the policies laid down and general instructions issued by the Railway Executive are made effective. It is also his duty to secure generally that the administration of the region is carried on economically and efficiently and with full regard to safety in operation. For these purposes the C.R.O. is accorded the rights of initiative and general oversight.

The C.R.O. takes part in consultations with his opposite numbers in other regions and effects liaison with other Executives of the Commission at the regional level. He also represents the region in public questions and on the consultative committees.

Among his other duties are the approval or recommendation (in consultation with departmental officer concerned) of all appointments of officers, and the determination of appeals from decisions of departmental officers on individual questions of discipline.

The local supervision of the conversion of the railway organisations to fit the national scheme, including the arrangements for adjustment of boundaries and "penetrating lines," closing of offices, and concentration of premises also falls within his sphere. The responsibility of dealing with tenders and contracts is his as well.

So far as concerns relationships, the Chief Regional Officer is responsible to the Railway Executive, and each Chief Regional Officer attends meetings representative of all regions which have been established by the Railway Executive.

The responsibilities of the members of the Railway Executive for departmental functions are:—

Members of Executive

Stores Advertising & Public Relations Estate & Rating Police	General Sir William Slim
Labour & Establishment Welfare Medical	Mr. W. P. Allen
Operation Ships Docks	Mr. V. M. Barrington-Ward
Commercial Passenger Goods Mineral Cartage Continental Hotels & Catering	Mr. David Blee
Mechanical Engineering Electrical Engineering Road Motor Engineering Scientific Research	Mr. R. A. Riddles
Civil & Dock Engineering Signalling & Telecommunications Architect	Mr. J. C. L. Train

Sir Wilfred Ayre and Mr. C. Neville assist the full-time members mainly in commercial matters and public relations. Sir Wilfred Ayre has a particular interest in Scottish affairs. The Chief Financial Officer is Mr. G. Morton, and the Legal Adviser and Solicitor is Mr. H. L. Smedley.

Inter-Railway Committees

In view of the over-riding need for unification of work throughout the system of British Railways, and the necessity for arriving at standard practices in all regions, the Executive decided that the best approach to this end would be obtained by regional officers working in conjunction with members of the Executive. The policy was adopted, therefore, of continuing in being a number of inter-railway committees, including some which had been set up by the Railway Executive

Committee or the Railway Clearing House With this end in view, and subject to general directions from the Railway Executive, the following committees were therefore set up:—

Accountants	Mineral
Advertising & Publicity	Operating
Civil Engineers	Passenger
Continental Traffic	Police
Docks Engineers	Railways Staff Conference
Docks Managers	Road Motor Engineering
Electrical Engineers	Road Transport
Estate & Rating Surveyors	Scientific Research
Goods	Signals and Telecommunications
Goods Terminals	Solicitors
Hotels & Catering	Statistical
Irish Traffic	Stores
Marine	
Mechanical Engineers	

So far as concerns staff arrangements, basic agreements with the trade unions are negotiated by the Railway Executive. The officer in the region dealing with staff matters—a Regional Staff Officer has been appointed in the Scottish, North Eastern, and Eastern Regions, where a similar officer of this standing was not already in being—is responsible to the member of the Railway Executive for staff, and is required to take a general, and not a purely regional, view of staff questions as they develop in the region. His function is to enable the members of the Executive for Staff to maintain close contact with the local aspects of staff matters; he acts as adviser to the regional departmental officers and in conjunction with them is responsible to the Chief Regional Officer for the efficiency of the staff arrangements within the region. Matters relating to medical arrangements and staff travelling facilities also come within his ambit.

In each region an Accountant is responsible to the Chief Regional Officer on matters coming within the latter's functions, and in other respects is responsible to the Chief Financial Officer of the Railway Executive, who lays down the principles to be followed. This involved a new appointment in the case of the Scottish, and North Eastern and Eastern Regions combined.

Similarly a Treasurer, a new appointment in each region (combined in North Eastern and Eastern) is responsible to the C.R.O. for cash arrangements coming within the latter's functions, and in other respects is responsible to the Chief Financial Officer of the Railway Executive, who will lay down principles.

Operating Supervision

As regards operating, the ordinary local day-to-day working is left to the Regional Operating Superintendents, but a close control is kept on all working at headquarters by the member of the Executive for operating. In cases where the responsibility for goods terminal and cartage (including road transport and control) is vested in the Superintendent of Operation or equivalent officer, these functions will, it is expected, be transferred in all cases to the Commercial Superintendent. The Commercial Superintendent's appointment is new to the Scottish, Western, and Eastern Region lines; the Commercial Superintendent, Western Region, in effect is the Chief Goods Manager, and to him is being transferred passenger commercial work.

No alterations have been made so far in the previously existing arrangements relating to advertising and publicity. The regional organisation of the public relations function is under review.

The officer responsible for civil engineering in each of the regions continues his previous activities. The departmental officers ask the Civil Engineer for plans and estimates for new works and alterations, the authority for which except in minor cases is sought from the Chief Regional Officer or through him from the Railway Executive.

Mechanical Engineering

The Chief Mechanical Engineers and Electrical Engineers (where appointed) of the regions are responsible to the Chief Regional Officers and/or to the member of the Railway Executive for mechanical and electrical engineering, or to the member of the Railway Executive for stores in respect of fuel purchases. The Railway Executive member lays down principles, and, in particular, standards, workshop practices, and research in specific problems, and on these matters communicates with the Chief Mechanical Engineer. Privately-owned wagons previously requisitioned have passed into the Commission's ownership, and arrangements as regards supervision of repairs, including financial settlements with outside repairers, continue in force.

Stores, estate and rating arrangements, docks, marine, canals, hotels and catering, medical arrangements, police, and legal affairs continue to be conducted much as they were under company systems, but with responsibility to the Chief Regional Officer for matters within his jurisdiction and to the functional member of the Executive for principles.

Works and Equipment

So far as concerns works and equipment (including rolling stock, cranes, ships, etc.) authority is sought from the Railway Executive by the Chief Regional Officer in the following manner:—

Renewal Programmes.—Programmes of renewals, and also programmes in lieu, or amendments thereof, so far as they depart from the original programme by more than £25,000 or by 10 per cent., whichever is the lower.

Additions and Improvements—All individual projects or additions to existing assets, or for the improvement, replacement, or displacement of existing capital assets where the total cost exceeds the ascertained or estimated original cost of the assets to be displaced by £2,000 or more. Similar measures are to be adopted for assets displaced and not replaced.

Any items which amount to £500, and less than £2,000, are authorised by the Chief Regional Officer. Items below £500 may be authorised by a Departmental Officer unless the total cost is £2,000 or more when the C.R.O.'s authority is obtained. Quarterly returns are submitted by the C.R.O. to the Railway Executive of all authorisations exceeding £200 and less than £2,000.

Tenders for works equipment are sent out by the Chief Regional Officer, who arranges for the opening of the tenders and passes the documents to the Regional Departmental Officer concerned for the latter to determine in cases up to £1,000; above that amount the Chief Regional Officer decides, except that the C.R.O. does not accept any tenders or approve any contracts exceeding £5,000 or a year in duration without the authority of the Railway Executive.

The Scottish Region

As it was necessary to establish a new Region for Scotland so that the administration of the railways in Scotland should function as a single entity, a scheme was drawn up for that area with the intention that, as far as possible, the other regions should adopt the basis laid down for Scotland. At the same time, although the Scottish Region may be considered a prototype, it is appreciated that it is also experimental, and may be modified in the light of experience. The dividing line between the Scottish and English Regions was drawn from Gretna to Burnmouth. The Motive Power Depot at Kingmoor, Carlisle, was placed under the control of the Scottish Region as also were the shipping terminal arrangements at Larne, although for mutual convenience it is provided that the Northern Counties Committee might, by arrangement, act as agents for any part of the work. The present arrangements in England for the construction and maintenance of rolling stock for Scotland will continue. The main headquarters of the Scottish Region are in Glasgow, but certain departments are located in Edinburgh.

The North-Eastern Region

The North-Eastern Region comprises the former North-Eastern area of the L.N.E.R., subject to the following additions and deletions:—

Additions

The Axholme Joint Railway
The Mid. & N.E. Committee (Swinton & Knottingley)
Silloth Line
Hexham to Saughtree
Reedsmouth to Morpeth
Rothbury Branch

Deletions

Sprouston & Carham Stations

The main headquarters are in York.

The Eastern Region

The Eastern Region comprises the former Southern area of the L.N.E.R., subject to the following additions and deletions:—

Additions

King's Lynn Docks & Railway
Great Central & Midland Joint (lines in Yorkshire only)
Great Central, Hull & Barnsley, & Midland Joint

Methley Railway
Met. & Gt. Central Joint Committee (Aylesbury to Verney Jct. only)
Midland and Gt. Northern Joint
Norfolk & Suffolk Joint
South Yorkshire Joint
Great Northern and L. & N.W. Joint
Halifax & Ovenden Joint
Halifax High Level Joint

Deletions

Drayton Park to Finsbury Park, and Finsbury Park tube stations
Electrified line through Stratford for London Transport trains
East Finchley to High Barnet & Mill Hill East
Leyton Junction to Woodford (excluding Woodford Station)
Fairlop Loop (excluding lines south of Newbury Park)

The main headquarters are at Liverpool Street Station, London.

London Midland Region

The London Midland Region comprises the existing L.M.S.R. system, subject to the following additions and deletions:—

Additions

Mersey Railway
Southport & Cheshire Lines Extension Railway
Manchester, South Junction, & Altrincham Railway
Oldham, Ashton-under-Lyne, and Guide Bridge Junction
Cheshire Lines Committee
Great Central and Midland Joint Committee—Lines in Lancashire
Great Central & North Staffs. Railway Committee
Great Central & N.W. Railways Joint Committee (Stalybridge)
Mid-Nottinghamshire Joint Railways Committee
Otley & Ilkley Joint Line Committee
Tottenham & Hampstead Joint Committee
Birkenhead Railway and Birkenhead Joint

Deletions

The L.M.S.R. undertaking in Scotland, the dividing line between the Scottish and English Regions being drawn immediately south of Gretna
Kingmoor (Carlisle) Motive Power Depot
Northern Counties Committee*

The main headquarters are at Euston Station, London.

The Western Region

The Western Region comprises the existing Great Western Railway system, subject to the following additions and deletions:—

Additions

Shropshire Railways (Nantmawr Branch)
Shropshire & Montgomeryshire Light (subject to War Department possession)
Easton & Church Hope
Weymouth & Portland
West London
West London Extension
Great Western & Great Central Joint
Great Western & Great Central (Banbury Junction Railway) Joint
L.M.S.R. and Great Western Joint Lines as under:—
Severn & Wye
Severn Bridge Railway
Brynmawr & Western Valleys
Clifton Extension
Halesowen
Rhymney Joint
Shrewsbury & Hereford (including Tenbury Line)
Shrewsbury & Welshpool
Shrewsbury & Wellington
Vale of Towy
Wrexham & Minera
West Cornwall

Deletions

Ealing & Shepherds Bush (Excluding Ealing Broadway)
Electrified line North Acton to Greenford (excluding Greenford Station)

The main headquarters are at Paddington Station, London.

The Southern Region

The Southern Region comprises the existing Southern Railway system, subject to the following additions and deletions:—

Additions

East Kent Light
Kent & East Sussex Light
North Devon & Cornwall Junction
Somerset & Dorset Joint

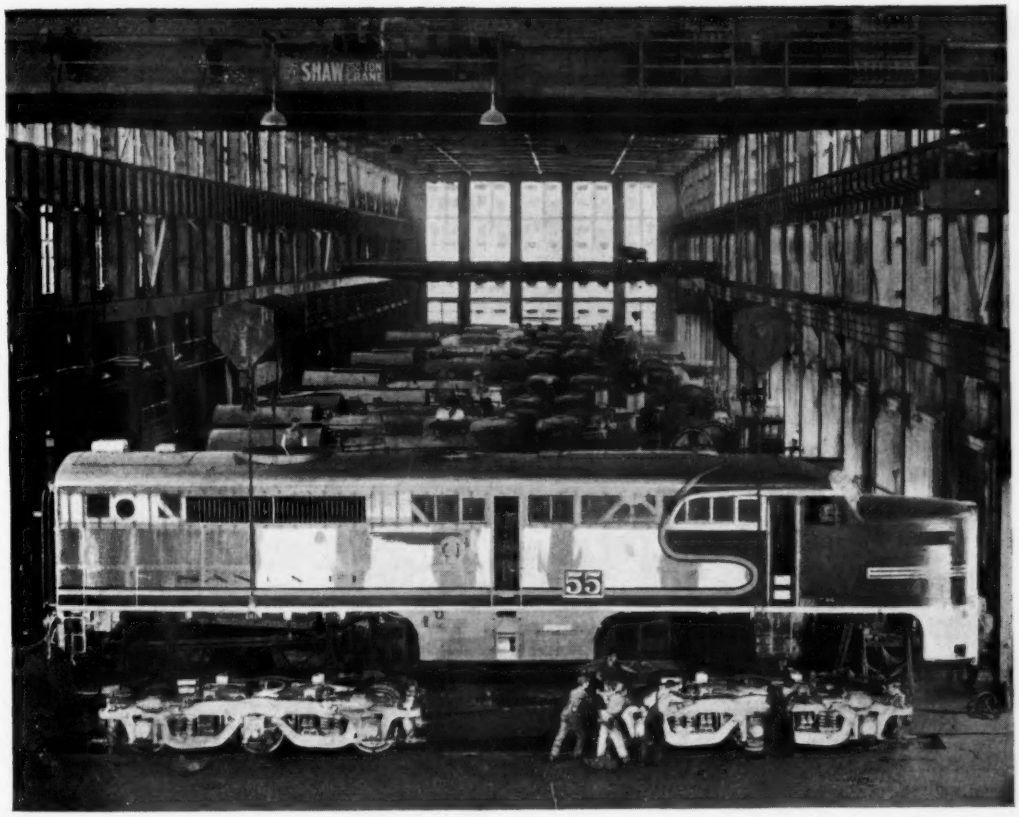
Deletions

Ravenscourt Park—Turnham Green
Whitechapel Junction—St. Mary's Junction.

The main headquarters are at Waterloo Station, London.

* The shipping terminal arrangements at Belfast are under the control of the London Midland Region, although for mutual convenience it is provided that the Northern Counties Committee may act as agents for any part of the work

A 150-ton Diesel at a Santa Fe Railway Works



Moving the forward bogies from under an Alco "51" class 150-ton diesel-electric locomotive at the San Bernardino shops of the Santa Fe Railway

Development of Automatic Lifts by London Transport

Stages in the replacement of the liftman by the automatic equipment with speech control of today

TWENTY years have now elapsed since the first completely automatic station lift was installed on the London Underground railway system. The first move towards more economic control methods in operating lifts was between 1920 and 1925 when a large number was converted to landing control, whereby an operator at each landing controls a group of lifts by means of the control switches associated with each lift and mounted close to the landing doors. This enabled a reduction to be made in the number of staff allocated to lift operation, even at the busiest stations. These cars carry 50 passengers each and, with one or two exceptions, the lifts operate at 180 ft. per min.

The original system of compressed air-operated exit gates and hand-operated entrance gates then became inadequate, and arrangements were made for all gates to be operated by pneumatic engines controlled by electrically-operated valves, switched from the landing control boxes or the car. Additional safety devices were required to ensure that the lift control switches were set up correctly for slowing and stopping at landings, and "police limits" were installed at an intermediate position in the shaft to check this on each trip.

First Automatic Lift

In 1928 a first experimental installation of a completely automatic lift was brought into use on the No. 2 lift at Warren Street Station. (These lifts were replaced later by escalators.) The mechanism was designed to effect the switch movements normally carried out by the landing operators and consisted essentially of a motor-driven, barrel-type switch similar to those used for electric signs. The 600-volt, d.c. motor, being shunt-wound, ran at a speed which was sufficiently constant for practical purposes.

On the drum switch was a number of contacts which could be closed in any desired order and time-spacing. These contacts operated relays which, in turn, made and broke the circuits required for operation. Illuminated signs were provided in front of the landing doors and the car exit gate showing "Gates closing" before they began to move. At the same time, a buzzer was sounded. All safety devices were retained, and in addition a passenger alarm was fitted inside the car. A governor, which was also fitted to the lift, rang a bell if the lift stopped in the shaft.

The equipment was arranged so that it could be operated as an independent unit, or with a pilot lift. In the latter case, the automatic lift left a landing as the pilot lift approached. Variations in landing time were made by adjustment to the contacts of the sequence switch. The piloted lift was kept in step by a shortening of its landing times, this being the last operation before it was despatched by the pilot lift.

After its removal from Warren Street when experimental work was complete, the equipment was re-installed at Earls Court Station, where it was used in combination with another set of equipment to operate two lifts. Further developments followed in 1935, when automatic equipment was installed to control three existing lifts at Strand Station, and, for the first time, speech equipment was incorporated.

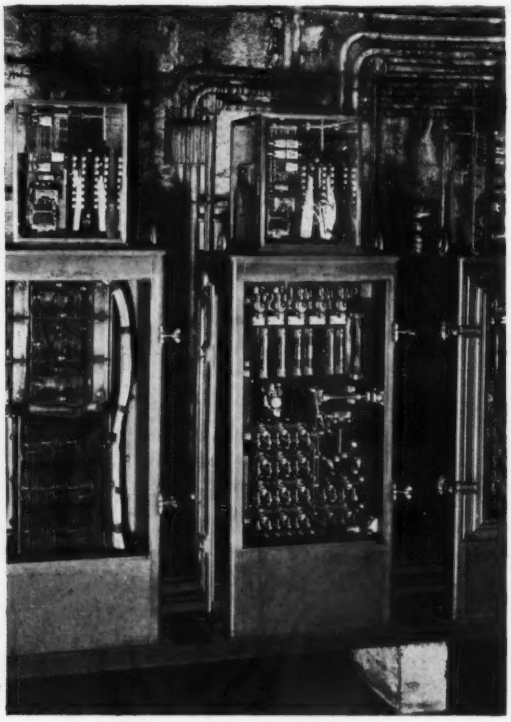
In this case an entirely new method of operation was used in which the timing was derived from impulses from a chain of slow-dropping relays. The relay chain was used to step a master selector relay at a pre-determined rate which gave the starting impulse to the equipment for each lift, and the starting impulses were arranged for the operation of one, two, or three lifts by means of telephone-type relays. Provision was made for the correct timing of one, two, or three lifts by means of telephone-type relays in the master selector, the relays being arranged to drive through unwanted contacts.

Flexibility of Working

In the case of two lifts working, one lift is at each landing. In the case of three lifts working, one lift is at each landing, the third being in transit. Provision is made to alter the landing times to suit traffic conditions.

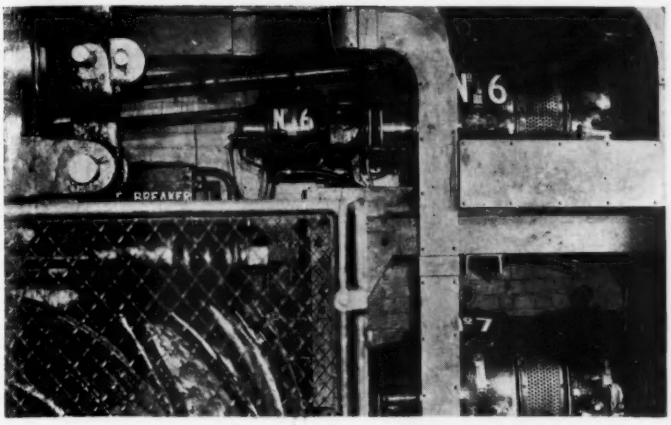
Each lift equipment was controlled by its own selector and set of telephone-type relays, stepped by the same relay chain, which operated contactors controlling the various circuits. Landing control gear had to be fitted as the main lift equipments were not arranged for landing control, and all limit switches, except the "ultimate limits," were removed from the shaft. The functions of these shaft switches are now covered by a group of switches in the machine room, operated mechanically by a steel tape drive from the lift car.

Speech equipment is of the variable area, film type, in which a beam of light is passed through a film mounted on a re-



Master and individual auto-control cabinets, Strand Station lifts

Interior of lift car, Strand Station, from Westminster side



Motor generator and exciter sets, Goodge Street Station lifts

volving drum to a photo-electric cell, connected to the amplifier. The drum is made to revolve by a.c. taken from the London Transport 220-volt, 33⅓-cycles, 3-phase mains, and a constant speed is maintained as with a synchronous motor.

Direct current for the relays is derived through metal rectifiers supplied from the same source. In practice it was found that the slow-dropping relay chain was liable to considerable error due to wear, so that it was decided to use the constant speed film drum to close a contact momentarily at each revolution. This drum revolves at 20 r.p.m. so that a 3-sec. impulse is obtained for stepping the selector relays; this arrangement now takes the place of the relay chain, which has been removed. Arrangement was made also in these lifts for the master selector to illuminate a "Next Lift" sign.

Safety Precautions

Provision is made for the following abnormal contingencies:—

(1) *Passenger alarm switch operated*

(*a*) At a landing: the last gate operation is reversed, and the alarm indicator operated.

(*b*) While lift is in motion: alarm operated and on arrival at a landing the exit gates only operate, the lift remaining in this condition until attended.

(2) *Failure of visible warning*

Gates do not close and the alarm indicator operates.

(3) *Failure of lift to start*

The entrance gates are re-opened after a short pause to enable passengers to take another lift, and the alarm is sounded for some 4½ sec. The landing cycle is then repeated in order to give the lift another opportunity of taking up its correct position in the cycle.

(4) *Gates delayed by passengers*

The alarm is sounded for two seconds if the lift does not leave the landing promptly, since this indicates that the gates probably are being prevented deliberately from closing.

(5) *Lift stopped in shaft*

The alarm is sounded until the lift receives attention.

(6) *Failure of speech equipment*

Should the speech equipment fail to operate, a humming noise is substituted.

High-Speed Lifts at Goodge Street

In 1937 a battery of three new lifts was installed at Goodge Street Station (making use of the shaft originally occupied by two of the original lifts), to meet the anticipated traffic to and from the new London University. These three lifts are of the high-speed type, running at 600 ft. per min., the driving machine being of the gearless traction drive type with variable-voltage control as opposed to the older ones of the drum type. The main hoisting motor has a hoisting sheave directly coupled to the armature and the brake drum is integral with it. Power for the main hoisting motor-generator and exciter-set is supplied from the London Transport 600-volt d.c. traction supply.

The exciter of this set supplies magnetising current to the main lift motor fields, and certain control circuits; the generator is electrically coupled direct to the main motor armature, and supplies current of direction and pressure as dictated by the generator field. The generator field is controlled from the main switchboard. Safety devices as described above are incorporated.

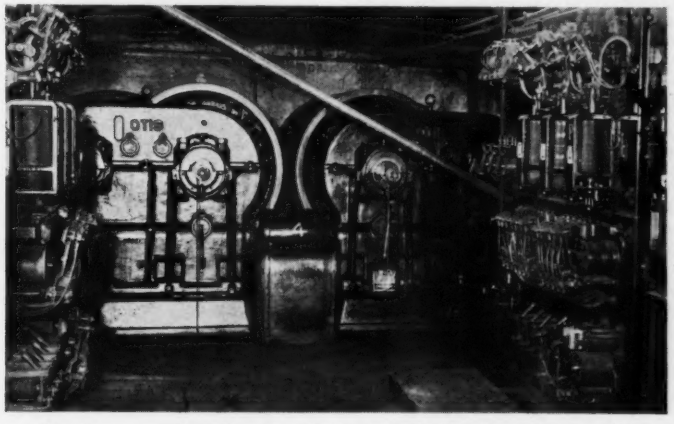
The same type of automatic control equipment as used at the Strand is installed, the master selector relay giving correct spacing of the lift and the individual relays initiating the various operations. The speech equipment is arranged to give warning of the closing of the exit gates through loudspeakers inside the car, and warning of the closing of the entrance gate by speakers on the entrance side of the landings. Illuminated signs are arranged to work in conjunction with these and a "Next Lift" sign is provided for each lift. Control boxes are arranged at each landing and in the cars for non-automatic operation, if required. For maintenance purposes the lifts may be controlled from the machine room, or from the top of the lift car.

Three-Landing Service at Oxford Circus

To meet the anticipated increase in the traffic at Oxford Circus Station arising out of the opening of the eastern and western extension of the Central Line a pair of automatically-controlled high-speed lifts was installed in 1942. These lifts, which have a capacity of 50 passengers, are operated at 500 ft. per min. They are of the gearless traction-drive type with variable voltage control as at Goodge Street, but serve three landings and are arranged for alternative duty cycles, the three landings being at platform, booking hall (or basement) and street levels.

On "Duty X" passengers are loaded at platform level, and conveyed to street level, where the exit gates open directly on the street. The lift then returns empty to platform level. On "Duty Y" passengers are loaded at booking hall level and conveyed to the platform level; the lift then returns empty to the booking hall. On "Duty Z" passengers are loaded at booking hall level and conveyed to platform level; passengers are then loaded for street level, after which the lift descends empty to the booking hall.

Owing to the layout of this station, through passages could not be obtained at the various landings, so that loading and unloading must take place at each landing on the same side of the lift, although doors are fitted at each end of the lift cars to suit the conditions at each landing. It was decided, therefore, that the lifts could best be used in conjunction with the escalators to convey passengers one way only, which gave rise to cycles "X" and "Y." Cycle "Z" is available to convey passengers in both directions, if necessary.



Machinery and main control boards, Earls Court Station lifts

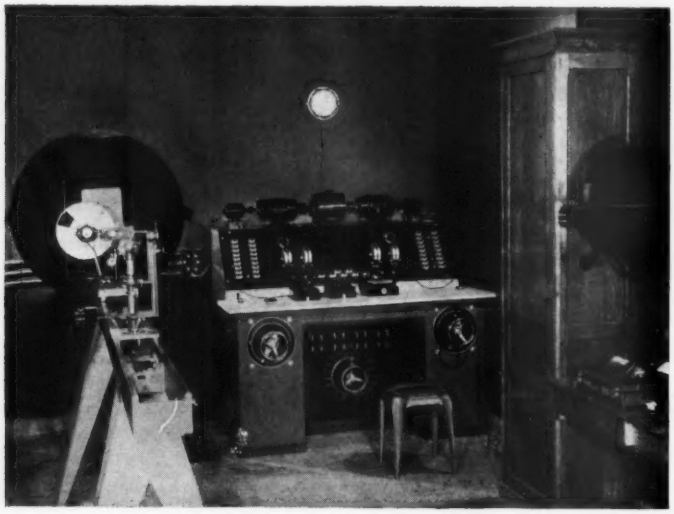
Control boxes are provided to operate the lifts from the cars or from the landings, and, for maintenance purposes, from the machine room and car top. A switch is provided at booking hall level, so that the lift may be despatched to street level at slow speed.

During the development of the automatic lifts it was found that the dust present in the tube railways was deleterious to the equipment, which therefore is now enclosed in dust-tight boxes.

ARGENTINA ORDERS U.S. BEARINGS FOR DIESELS.—The Argentine State Railways have ordered roller bearings to equip 130 diesel-electric locomotives, from the Timken Roller Bearing Company, of Canton, Ohio.

S.N.C.F. Central Signalling Laboratory

Equipment provided by the French National Railways Company for testing apparatus under varying electrical, mechanical and meteorological conditions



Laboratory for photometric measurements

COMPREHENSIVE tests of mechanical and electrical apparatus used in signalling and other services are carried out in the French National Railways Central Signalling Laboratory at St. Ouen, Paris, under the control of M. Sigrist, Director of the Laboratory. This institution works in close collaboration with French manufacturers and may claim to be one of the best of its kind in the railway world.

To ensure safety in automatic block working numerous trials of mechanical and electrical apparatus are made under extreme variations of temperature and other weather conditions. Tests are made and counted by automatic devices in two rooms, in which temperatures can be varied from −25° C. (−13° F.) to 70° C. (158° F.) and the atmosphere saturated with water vapour for producing rain, fog or frost. Defects, otherwise undetectable, are revealed under these conditions and eliminated, where possible, with the collaboration of the makers.

Comprehensive Testing Facilities

Each room is 12 cu. m. (424 cu. ft.) in capacity. One is adapted for testing signalling relays, 160 at a time, and the other for testing motors used in switching and signalling. Apparatus may be operated from outside the rooms at variable rates and submitted to prolonged endurance tests. For instance, it may be actuated two million times, cut by rest intervals, at temperatures varying between the extremes. Electrical properties are verified at all stages of the tests, and coil resistance checked.

As the tests require d.c. and a.c. power supplies, the latter at varying frequencies, the two rooms and others adjoining them are fitted with generating sets supplementing the service substation. Other rooms are provided for electric and photometric tests and for measuring dielectric strength and current intensities up to several thousand amperes. Tables pre-equipped with apparatus reduce to a minimum the preliminary wiring required for tests.

One long table is equipped for testing signalling apparatus, particularly block signalling, and others are fitted for testing a.c. line circuits, auxiliary apparatus, and inductive connections.

In the precision measurement room are numerous tables fitted for measuring resistances, capacities, insulation, and other electrical properties. Another room is equipped for testing the mechanical strength and endurance of apparatus subjected to shocks and vibrations.

Photometric Equipment

The equipment for photometric measurements of signalling lamps, coloured glass, and lighting equipment includes a Lummer and Brodhun photometer for visual measurements; two spheres, 1 m. and 0·5 m. in diameter, to measure the light flux of lamps; a tunnel 25 m. (82 ft.) long for photometric measurements of light from lenses, projectors, and other apparatus; and a precision spectrophotometer to analyse light from coloured glass. The laboratory has carried out numerous tests to standardise coloured glasses, not only for railways, but also for lighthouses, harbour lights, and road signalling.

Testing of Electrical Equipment

For electric high-tension tests a room is equipped with two adjustable transformers providing maxima of 3,500 and 100,000 volts, which are used for insulation testing. In its low tension work, the laboratory tests approximately 600,000 cells used annually by the French railways, measuring potential differences, internal resistances, and capacities on metal benches designed to accommodate 1,200 cells at a time.

Accumulators are tested also, and the testing installation is to be extended to undertake systematic control of the manufacture of secondary batteries. Signalling lamp deliveries are tested by the laboratory on metal benches with a total capacity of 1,500 lamps. The laboratory also collaborates with the makers in constructing prototypes.

Part of the laboratory is equipped for dealing with various systems of short-wave radio communication. The systems successfully applied in the marshalling yards at Trappes, Juvisy, and St. Pierre des Corps were developed in collaboration with the laboratory staff. Experiments are now being made in the use of the catenary as a guide for the waves.

Apparatus for circuit tests of signalling equipment

ATOMIC SCIENTISTS ASSOCIATION.—A programme of three meetings in March and April is announced by the Atomic Scientists Association. They will be held in the lecture hall of the Royal Society of Arts, John Adam Street, Adelphi, London, W.C.2, on Fridays; the first is today, March 19, and following meetings will be on April 2, and April 16. At the meeting on April 16, the association will show the atomic energy film recently made in conjunction with members by Gaumont British Instructional Limited. There will be two shows, at 5 p.m. and 7.15 p.m. Tickets may be obtained from Dr. L. E. C. Hughes, 15, Avenue House, Allitsen Road, N.W.8, at 2s. 6d. per meeting.

Polish Railway Development Plans

Concentration on the building of new locomotives and rolling stock is the first stage in a wider improvements programme

THE Polish railways at present are carrying 90 per cent. of the total traffic of the country; and in view of the retarded development of other forms of transport, it is unlikely that this ratio will be altered substantially in the next decade or so. It is mainly for this reason that the capital investment in the railways in 1948 continues to be high, although their reconstruction has been completed in the main.

The total funds devoted to railway development will be 20,000 million zloty (£12,500,000 at par). Thus, no less than 58 per cent. of the total credits earmarked for capital investment has been set aside for the needs of rail communication. More than one-third of this sum will be spent in the western territories of Poland.

The principal items of capital expenditure provided in the 1948 plans are rolling stock, development of existing lines, reconstruction of war-damaged buildings, and overhaul of mechanical and electrical equipment. Over two-fifths of all credits allocated to railways this year will be spent on rolling stock building. Most of these requirements will be met by Polish industry, the output of which has surpassed the pre-war level already. Against a pre-war output of 13 locomotives a month, the present figure is 18; in wagon building the comparative figures are 288 pre-war and 1,000 today.

Annual Construction Targets

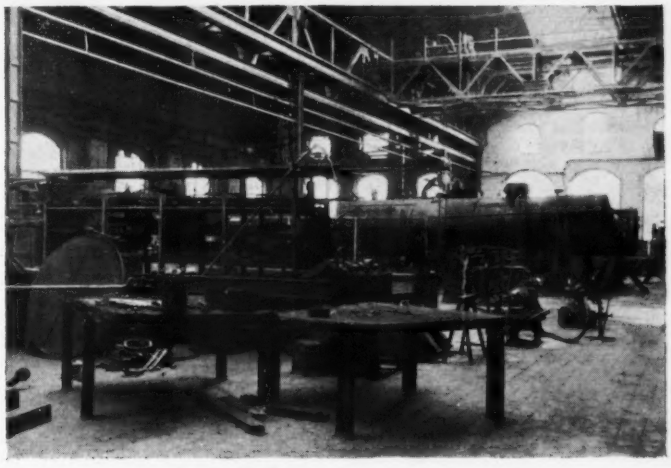
The construction programme for 1948 aims at the production of 212 general-purpose and 35 express locomotives, 11,000 coal wagons, 180 passenger coaches, 64 mail vans, 560 tank wagons, 174 refrigerator vans, and 121 goods wagons of specialised types. In addition, a comprehensive production programme of component parts, buffers, springs, locomotive accessories, brakes, turntables, and motor-driven inspection vehicles is to be put into effect.

The programme of developing existing lines gives precedence to the rebuilding of the principal railway centres, namely, Warsaw, Upper Silesia, and Stettin; and the principal main routes, such as those linking Silesia with Warsaw, and Silesia with the Baltic Coast. This year, however, the programme is likely to be restricted to developing the network of lines round the Polish capital, and in the immediate vicinity of Stettin. New permanent way work will not go beyond the laying of a second track in several areas, particularly in Pomerania; and the building of a new line between Tomaszow Mazowiecki and Radom in Central Poland.

Locomotive Production

The remainder of the credits (totalling some 4,700 million zlotys, or about £2,900,000) will be devoted to rebuilding and re-equipment of railway stations, workshops, and bridges. Electrification is to be proceeded with mainly in the suburban area of Warsaw.

A 44-seat restaurant car for Polish main-line services



Interior of the locomotive repair shop at Pila

In the motive power field, the two Polish locomotive works have shown encouraging results in the past year. After overcoming initial difficulties, the Cegielski Works at Poznan turned out 122 locomotives, equivalent to 213 per cent. of pre-war production. In 1948 this figure should increase by a quarter. Output figures of other rolling stock in the same period include 84 passenger coaches, including 20 sleeping cars. The projected 1948 production level is 240 carriages.

Developments at the Polish Locomotive Works at Chrzanow also have been hopeful. Their activities are summarised in the following table:—

Year	No. of locomotives produced	No. of types produced
1945	33	1
1946	90	3
1947	130	4
1948 (planned) ...	150	8

The output for the past year exceeded the planned level of production by one-fifth.

For the first time since the war, foreign orders were received. These were from Bulgaria (for 30 narrow-gauge locomotives of three designs); and from Jugoslavia, which ordered 12 locomotives. By the end of December these orders had been met to the extent of three and five locomotives respectively. Since the beginning of this year the Bulgarian railways are reported to have ordered ten more narrow-gauge locomotives. Rumania has placed an order for 15 engines. In all, the export order book of the Chrzanow Works shows orders for 67 locomotives in hand at the present time.

For the home market the works are building nearly 90 locomotives of various designs. These include three types of standard-gauge main-line locomotives for the Ministry of Communications; two types of four-coupled and six-coupled industrial locomotives; two narrow-gauge locomotive types; and an electric locomotive. Work on eight designs (four standard- and four narrow-gauge) will be carried out this year.

Powerful Narrow-Gauge Design

Like the Cegielski Works at Poznan, the Chrzanow works have been commissioned to turn out the "PT47" express locomotive class, of which there are only seven working on Polish main lines at present. Another interesting class is a heavy narrow-gauge locomotive specially built for suburban railways in Upper Silesia. Ten of the latter engines were scheduled to be completed by the end of the current month.

The works are engaged also on the production of a full range of railway accessories for traffic and maintenance purposes, as well as underframes for other Polish rolling stock factories.

Shunting Locomotives Built by South African Railways

Series of 12 Class "S1" 0-8-0 shunters under construction at Salt River to replace old main-line engines on shunting duties

TWELVE shunting locomotives, designated Class "S 1," are being constructed in the Salt River Workshops of the South African Railways & Harbours Administration. The first of these engines to be completed, named the *Voortrekker*, was placed in service on October 8, 1947 (see our October 17, 1947, issue). The object in view is to replace main-line engines which are nearing the end of their useful life. The "S 1" class was designed by Dr. M. M. Loubser, Chief Mechanical Engineer, South African Railways & Harbours.

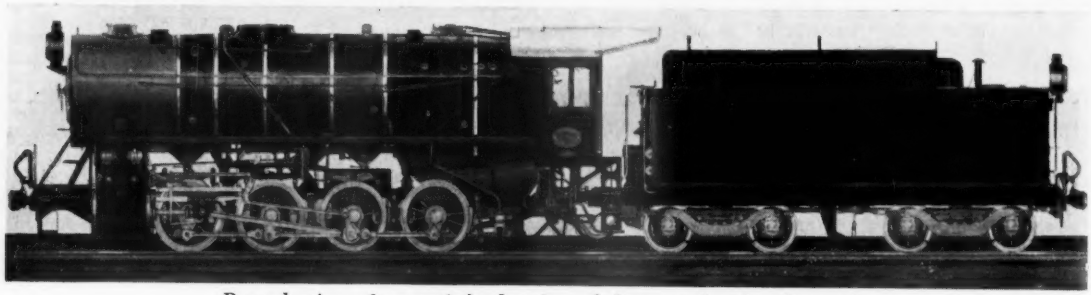
38,000 lb. at 75 per cent. boiler pressure, and it is said to be the most powerful of its kind in the world operating on a 3-ft. 6-in. gauge. The adhesion factor is 4·48. The engine has the 0-8-0 wheel arrangement and the wheel diameter is 4 ft. The boiler pressure is 180 lb. per sq. in. and the total heating surface is 1,840 sq. ft. *plus* the superheater area of 428 sq. ft.

The "S 1" boiler is fitted with S.A.R. standard boiler fittings, such as a multi-valve steam regulator in the smokebox, steam turret for the distribution of steam to the various auxiliaries, duplex top feed valve for the delivery of feedwater from the injectors, a soot blower, and external vacuum ejector from the exhaust pipe to the smokebox. There are 30 superheater flue tubes, 5½ in. in diameter, and 156 boiler tubes, 2 in. in diameter. A multiple-valve regulator superheater header is fitted in the smokebox. The external diameter of the boiler barrel at the throat-plate end is 6 ft. 1½ in., and the length of the barrel is 12 ft. 7 3/16 in. The boiler centre line above rail level is 9 ft. 2 in.

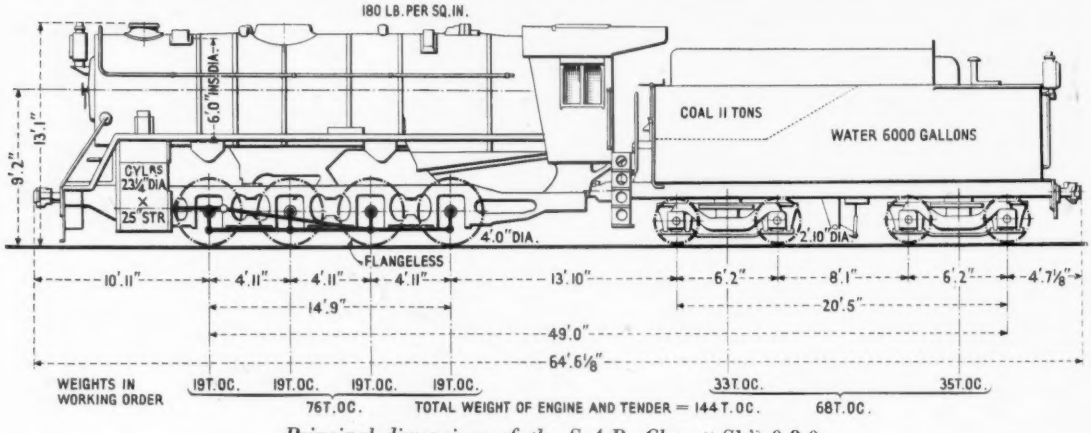
Valves for supplying steam to the various auxiliaries are mounted on the steam turret arranged outside the cab and are provided with spindles which extend into the cab and are supported by a bracket attached to the firebox top. The valves are operated by means of handwheels. Cylinders are 23¼ in. in diameter and have a 25-in. stroke. The 9-in. piston valves are actuated by Walschaerts valve gear, and maximum valve travel is 5 1/16 in. The main bar frames are 4 in. thick. A modified and strengthened draft gear is fitted to the front of the engine and back of the tender. The intermediate draft gear between engine and tender is similar in design to that of the Class "15 F" engines recently placed in service.

The cab can be removed from the engine by detaching a removable plate without dismantling valve operating rods. The cab, 9 ft. 9 in. wide, is of standard type with a sloping front plate, and is so placed that the clothing covering the flexible stays and stay caps on the firebox wrapper plates may be taken off for examination of stays without removing the cab from the engine. Hinged and adjustable glass windscreens are provided for the lookout.

The hopper ashpan is attached to the engine frames in accordance with S.A.R.



Reproduction of an artist's drawing of the new shunting locomotive



Principal dimensions of the S.A.R. Class "S1" 0-8-0

Principal dimensions are as follow:—

Driving wheels, dia.	4 ft.
Cylinders: dia.	23¼ in.
stroke	25 in.
Boiler pressure	180 lb. per sq. in.
Heating surface—	
Firebox	168 sq. ft.
Tubes	1,652 ,,
Arch tubes	20 ,,
Superheater	428 ,,
Total	2,268 ,,
Grate area	42 sq. ft.
Tractive effort at 75 per cent. boiler pressure	38,000 lb.
Total wheelbase	49 ft. 0 1/16 in.
Maximum axle load on driving wheels	19 tons
Total weight—	
Engine	76 ,,
Tender	68 ,,

The total weight of the engine is available for adhesion, leading and trailing bogies having been eliminated to simplify the design and reduce cost of repairs. We are indebted for the accompanying particulars to Mr. T. J. Espitalier, of the South African Railways & Harbours Administration.

The tractive effort of this locomotive is

The maximum axle load on the driving wheels is 19 tons, and the total weight of the engine is 76 tons, while that of the tender is 68 tons. A new type of tender was designed, to carry an increased coal load of 11 tons while allowing practically the same visibility to the rear as on the existing Class "S" engine tenders. Water capacity is 6,000 gallons. The tender underframe and bogies are identical with the existing "J T" type tenders supplied with Classes "15 E," "15 F," and "16 E" engines, which embody standard type bogie centres, side bearers, and other details.

Both engine and tender are fitted with vacuum brakes; on the engine two 21-in. vacuum cylinders are arranged below the running boards, one on each side. The spring gear arrangement for the coupled wheels is of the overhung type.

RAILWAY NEWS SECTION

PERSONAL

Mr. S. J. Marchant, Principal Assistant to the Chief Officer for Labour & Establishment, London Midland Region, is retiring on March 31.

Mr. C. A. Hadcock, Assistant General Manager, Buenos Ayres Great Southern and Buenos Ayres Western Railways, and General Manager, Buenos Ayres Midland Railway, has resigned, to take up an appointment as a Director of Evans, Thornton & Company, a British importing firm in Buenos Ayres. Mr. S. E. Fay, Manager, Buenos Ayres Southern Dock Co. Ltd., has retired.

We regret to record the death on March 10 of Mr. E. J. Fouracre, Director & General Sales Manager of the Westinghouse Brake & Signal Co. Ltd.

The late Mr. Charles A. Roberts, Chief Goods Manager, G.W.R., 1912-21, left £53,860.

We regret to record the death on February 12, of Mr. William Harty, C.B.E., Executive Vice-President, Canadian Car & Foundry Co. Ltd.

Sir Arthur Smout, who has been elected President of the Institute of Metals, was born at Birmingham in 1888, and was educated at King Edward's School, Birmingham, and Birmingham Technical College. He was appointed to the main board of Imperial Chemical Industries Limited in 1944. He was Director General of Ammunition Production, Ministry of Supply, 1942-1945.

RAILWAY EXECUTIVE

The following appointments at the Railway Executive Headquarters have been announced:

Mr. L. W. Conibear as Executive Officer (Passenger).

Mr. E. A. W. Dickson as Assistant to Chief Financial Officer (Treasury Matters).

Mr. J. T. Drinkwater as Assistant to Chief Financial Officer (Revenue Matters).

Mr. J. R. Edwards as Assistant, Engineering (Communications).

Mr. E. J. Vipond as Assistant Chief Officer (Operating).

Mr. D. F. Gowen as Salaried Staff Assistant to Chief Officer (Staff & Establishment).

Mr. R. W. Bailey as Technical, Workshop & Maintenance Staff Assistant to Chief Officer (Staff & Establishment).

Mr. C. H. Brazier as Wages Staff Assistant to Chief Officer (Staff & Establishment).

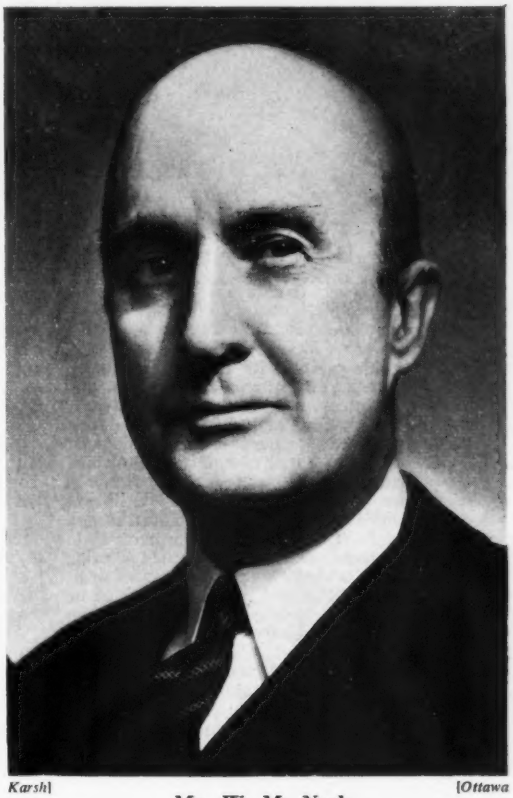
Mr. A. G. Tindill as Administrative Assistant to Chief Officer (Motive Power).

Mr. P. Holt as Statistical Assistant to Chief Financial Officer.

Mr. J. M. Harrison as Executive Officer (Architectural), and Architect to Engineer's Office, Eastern Region.

Mr. J. B. Campbell as Assistant (Engineering) for Bridges, Locomotive Permissions, etc.

Mr. William Merton Neal, C.B.E., who, as recorded in our March 12 issue, has resigned from the position of Chairman & President of the Canadian Pacific Railway, had been recuperating in Jamaica this winter, from an illness of some months' duration, and tendered his resignation on the insistence of his medical advisers. He asked, under the circumstances, to be relieved of his responsibilities immediately. Mr. Neal was born in Toronto in June, 1886, and joined the C.P.R. in 1902; his railway progress was rapid, and in 1922 he was placed in charge of the Algoma district as General Superintendent at North Bay. Two years later, he was Assistant to the Vice-President at Montreal, and from 1927 to 1942 he was first General Manager and then Vice-President of Western Lines, at Winnipeg. He was made Vice-President of the company in 1942. Early last year he was elected Chairman & President. In the first world war Mr. Neal served as General Secretary of the Canadian Railway War Board, and in the second world war was Canadian representative on the transportation equipment committee of the Combined Production and Resources Board of Canada, the United Kingdom and the United States. He was Chairman of Canadian Pacific Steamships and Canadian Pacific Air Lines, and President of the Canadian Australasian Line. He is Vice-President of Consolidated Mining & Smelting Company of Canada, and his other directorships include the Minneapolis, St. Paul & Sault Ste. Marie Railroad, Canadian Marconi Company, Sun Life Assurance Company of Canada, and Royal Exchange Assurance. On the executive committee of the Canadian Chamber of Commerce, Montreal, and the Council of the Montreal Board of Trade, Mr. Neal is a past President of the Winnipeg General Hospital.



Karsh [*Ottawa*

Mr. W. M. Neal

Chairman & President, Canadian Pacific Railway, 1947-48

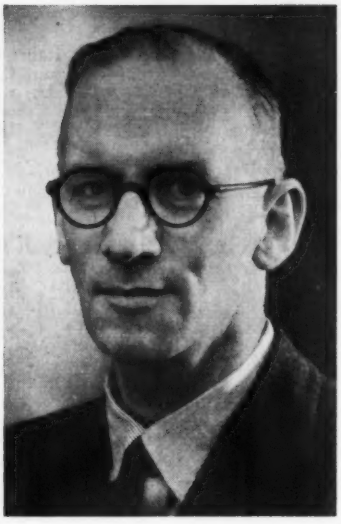
The Westinghouse Brake & Signal Co. Ltd. has announced the following appointments as from February 1:—Mr. M. W. Shorter as Sales Manager, Mr. C. Sprang as Deputy Sales Manager, and Mr. H. J. Willett as Assistant Sales Manager (Rectifier Department).

Mr. W. J. A. Peck has been re-elected Chairman, and Mr. N. D. Fawkner, Vice-Chairman, of the Express Carriers Group of the Road Haulage Association for the forthcoming year. Mr. H. H. Crow has been re-elected Chairman of the Bulk Liquids Group.

Dr. Morris Reed has been appointed Chief Radio Engineer of Philips Electrical Limited Mitcham Works.

Mr. R. E. Sinfield, A.M.Inst.T., who, as recorded in our January 30 issue, has been appointed Continental Superintendent, Southern Region, joined the South Eastern & Chatham Railway in 1922 as a clerk in the Continental Department of the General Manager's Office. In 1925 he was appointed to assist the Timetable & Publicity Assistant of the Continental Department, Southern Railway, to which position he succeeded in 1931, and was appointed one of the company's delegates to the International Timetable and Through Carriage Conference. In 1938 he was appointed Deputy to Chief of Continental Passenger Section. In 1940 and 1941 he was attached to various Military Home Forces, as Railway Liaison Officer, and in July, 1941, was appointed Acting General Assistant to the Docks & Marine Manager at Southampton Docks. Early in 1946 Mr. Sinfield was appointed Divisional Marine Manager, Dover, and in June of the same year be became Assistant Continental Superintendent, Victoria. Mr. Sinfield was until his appointment at Dover a member of the committee of the Southern Section of the Institute of Transport.

Mr. J. B. Figgins, who, as recorded in our February 27 issue, has been elected General Secretary, National Union of Railwaymen, was born at Largs, Ayrshire, in March, 1893. He had early railway experience in Ayrshire and in the Glasgow area, and from 1924 onwards, held many representative positions in the National Union of Railwaymen. He served as a Member of the N.U.R. National Executive Committee, and in 1938 was appointed Organiser (London). In 1943, Mr. Figgins was appointed Assistant to the General Secretary, N.U.R., and Acting General



Mr. R. E. Sinfield
Appointed Continental Superintendent, Southern Region

Mr. J. B. Figgins
Elected General Secretary, National Union of Railwaymen

Photo} {Lafayette
The late Major H. P. M. Beames
Deputy Chief Mechanical Engineer, L.M.S.R., 1931-34

Secretary in September, 1947. He is a Member of the T.U.C. General Council, the Executive Committee, International Transport Workers' Federation, and is also a member of catering wages boards for industrial canteens, licensed hotels, and unlicensed hotels.

Major Hewitt Pearson Montague Beames, C.B.E., M.Inst.C.E., M.I.Mech.E., whose death at Chester Place, Crewe, we recorded in our March 12 issue, served nearly 40 years with the L.N.W.R. and L.M.S.R. He entered Crewe works as a premium apprentice in January, 1895, and became a pupil of F. W. Webb; later he was placed in charge of Carlisle Shed and District. In 1899 he became Junior Assistant to the Works Manager at Crewe, but on the outbreak of the South African War he volunteered for national service, and served in the Western Transvaal operations during 1900-01. He returned to Crewe in June, 1901, and was appointed Assistant Outdoor Superintendent in 1902 and Personal Assistant to the Chief Mechanical Engineer in 1910; this position he held until August, 1914. He again offered his services, and was given command of the 110th Company (Railway), R.E. Major Beames held this position until seconded as Works Manager at Crewe, in charge of munition work and preparing locomotives for war service. On release from military duty in 1919, he was appointed Deputy Chief Mechanical Engineer, L.N.W.R., and was promoted to Chief Mechanical Engineer in the following year. As a result of the amalgamation of the L.N.W.R. and L. & Y.R., he became Divisional Mechanical Engineer, Western Division, in January, 1922, and on the formation of the L.M.S.R. was designated Mechanical Engineer, Crewe, in 1923. On various occasions Major Beames visited France, Italy, Germany, and the United States to study foreign railway practices. During 1925-27 he designed and carried out the complete reorganisation of Crewe locomotive works, and introduced into Europe the progressive system of repairing locomotives, on what came to be known as "the belt." He was appointed Deputy Chief Mechanical Engineer, L.M.S.R., in 1931, and retired in 1934. In March, 1935, the King conferred the Efficiency Decoration on him and in the 1946 New Year Honours he was made a C.B.E. (Civil Division).

Mr. T. H. Hollingsworth, M.Inst.T., as recorded in our issue of January 9, has been appointed Principal Assistant to the Commercial Superintendent, Paddington, Western Region, Railway Executive, in succession to Mr. G. Cornish, who retired on December 31. Mr. Hollingsworth joined the G.W.R. in 1913 at Cardiff Goods Station, and was with His Majesty's Forces for 3½ years in the first world war. In 1923 he was selected for a four years' course of special training in all departments, on the termination of

Mr. T. H. Hollingsworth
Appointed Principal Assistant to Commercial Superintendent, Western Region

Mr. W. M. Hitchcock
Appointed General Assistant to Commercial Superintendent, Western Region

Mr. A. H. Madden
Appointed Assistant Divisional Operating Manager, Manchester, London Midland Region

which he was posted to Aberdare, from whence, in 1929, he was selected to serve on a Staff Investigation Committee. The next three years were spent in the Chief Goods Manager's Office, where he gained further experience in staff work, and as an outdoor representative attached to the Working Department, where he gained experience of the many problems associated with goods shed and yard operating. After a period as District Cartage Clerk, Swansea, Mr. Hollingsworth was engaged on outdoor duties in connection with the reorganisation of work at Paddington Goods Station, and later in charge of the Staff Investigation Committee. In 1936 he became Chief Clerk in the Development Department, and also was "All-Line" organiser and examiner of the classes in salesmanship. Four years as Assistant District Goods Manager, Cardiff, preceded Mr. Hollingsworth's appointment as District Goods Manager, Worcester, in 1942. In May, 1944, he became District Goods Manager at Bristol. Since July, 1946, Mr. Hollingsworth has been General & Staff Assistant to the Chief Goods Manager. He has been an active member for many years of the G.W.R. Lecture & Debating Society, which awarded him the first prize and gold medal in the 1929-30 session for his essay on "The Private Owner's Wagon Problem," and the second prize on two other occasions.

Mr. W. M. Hitchcock, who, as recorded in our January 9 issue, has been appointed General Assistant to Commercial Superintendent, Paddington, Western Region, Railway Executive, joined the service of the Great Western Railway in January, 1909, at Paddington Goods Station. He was transferred to High Wycombe in 1913, and after gaining experience at that station, in the District Goods Manager's Office, Reading, and in the Chief Goods Manager's Office at Paddington, he became Goods Agent for the G.W.R. and L.M.S.R. at Malvern. In 1934, on recall to Headquarters, he was associated with special duties concerning pooling and closer working arrangements. Early in 1940 he took charge of the Working Department, Chief Goods Manager's Office. In April, 1941, he was appointed Assistant District Goods Manager, London District, and in October, 1943, he became District Goods Manager, Liverpool District. During his career Mr. Hitchcock has lectured on station accountancy, goods rates and station working. He has been a member of the Liverpool Port Emergency Committee; the Liverpool, Birkenhead, and Manchester Chambers of Commerce: the Dee Catchment Board; North West Regional Road-Rail Committee; Employers' Panel, Ministry of Labour: Liverpool District Conference; and Manchester District Conference.

Mr. A. H. Madden, A.M.I.Loco.E., A.M.Inst.T., who, as recorded in our January 30 issue, has been appointed Assistant Divisional Operating Manager, Manchester, London Midland Region, was educated at Campbell College, Belfast. He served his apprenticeship in the shops of the Northern Counties Committee at Belfast from 1920 to 1925, and for the next two years was employed in the Drawing Office and Running Department. In 1927 he became an improver on probation, and two years later went to Hellifield Motive Power Depot as Running Shed Foreman. In 1931 he was made Head Office Mechanical Inspector at Derby, and held that position for three years, during which period he was employed also on relief duties on the Midland Division. Mr. Madden was Assistant in the Office of the Divisional Superintendent of Operation, first at Manchester (1935-39), and then at Crewe (1939-40), after which he was District Locomotive Superintendent at Bank Hall (1940-41), and at Accrington (1941-43). He was appointed Assistant to Operating Manager (Motive Power), Glasgow, in 1943, Assistant District Operating Manager, Leeds, in 1945, and District Operating Manager, Wakefield, in 1946.

London Midland Region Appointments

The following appointments are announced in the London Midland Region, Railway Executive:—

Mr. C. H. Sutherland, Assistant Chief Accountant, to be Regional Accountant.

Mr. W. R. Candlin, Assistant to Chief Accountant, to be Assistant Regional Accountant.

Mr. P. R. Hickman, Assistant Chief Stores Superintendent, to be Regional Stores Superintendent.

Mr. W. J. Manclark, Assistant for Purchasing, Chief Stores Superintendent's Office, to be Assistant Regional Stores Superintendent.

Mr. H. G. N. Read, Assistant Chief Commercial Manager (General), to be Assistant Chief Commercial Manager.

Mr. F. O. Bates, Senior Common Law Assistant, Chief Solicitor's Office, to be Assistant Solicitor.

Mr. F. W. Baker, Chief Cashier, to be Regional Treasurer.

Mr. C. R. Nicholls, Assistant to Chief Cashier, to be Assistant Regional Treasurer.

Mr. S. Williams, Divisional Signal & Telegraph Engineer, Manchester, to be Acting Assistant Signal & Telegraph Engineer.

Mr. M. S. Hatchell, Assistant to Chief Mechanical Engineer, Southern Region, Brighton, to be Principal Assistant (Locomotives) to Chief Mechanical Engineer, Derby.

Mr. A. E. Robson, Works Superintendent, Carriage & Wagon Works, Derby, to be Principal Assistant (Carriages & Wagons) to Chief Mechanical Engineer, Derby.

Mr. A. E. Bates, Works Superintendent, Carriage & Wagon Works, Earlestown, to be Works Superintendent, Carriage & Wagon Works, Derby.

Mr. E. Stanley, Assistant Works Superintendent, Carriage & Wagon Works, Wolverton, to be Works Superintendent, Carriage & Wagon Works, Earlestown.

Mr. C. R. Campbell, District Locomotive Superintendent, Newton Heath (Manchester), to be Assistant Divisional Operating Manager (Motive Power), Crewe.

Mr. G. F. Horne, District Locomotive Superintendent, Toton, to be District Locomotive Superintendent, Newton Heath.

Mr. D. D. Scott, District Locomotive Superintendent, Plaistow, to be District Locomotive Superintendent, Toton.

Mr. H. A. Peet, Assistant (Motive Power), Office of Divisional Operating Manager, Derby, to be District Locomotive Superintendent, Plaistow.

Mr. W. A. G. Suddaby, Assistant District Operating Manager, Leeds, to be Assistant District Operating Manager, Rotherham.

Mr. R. N. Barlow, Assistant to District Operating Manager, Rugby, to be Assistant District Operating Manager, Leeds.

Mr. H. W. T. Young, Yardmaster, Hunslet Sidings, Leeds, to be Assistant to District Operating Manager, Rugby.

Mr. L. T. Podmore, Assistant to District Operating Manager, Birmingham (Western), to be Assistant to District Operating Manager, Preston.

Mr. H. A. Pope, Assistant to District Operating Manager, Preston, to be Assistant to District Operating Manager, Birmingham (Western).

Mr. J. Turner, Goods Agent, Sheffield (Wicker), to be Docks Superintendent, Garston Docks.

Sir Cyril Hurcomb, Chairman of the British Transport Commission, is visiting Swindon on March 23 to inspect the railway works there as well as the carriage and wagon shops, locomotive shops, locomotive testing plant and the oil fuel installation. On March 24 and 25 he will visit Newport, Cardiff, Penarth, Barry, Port Talbot and Swansea, where he will inspect the docks, and will also visit the Ebbw Junction locomotive depot, and the Cardiff West signal installation.

Canadian Railway Officers Honoured for War Services

At an investiture in Ottawa on February 10, Viscount Alexander, Governor-General of Canada, bestowed the insignia of C.M.G. and C.B.E. (Civil Division) on five Canadian railway officers in recognition of their services during the war

Left to right: Mr. E. W. MacKinnon, C.B.E., retired Superintendent, Prince Edward Island Division, C.N.R.; Mr. Maynard A. Metcalf, C.B.E., Vice-President & Executive Assistant, C.N.R.; Mr. W. S. Thompson, C.B.E., Director of Public Relations, C.N.R., and Trans-Canada Air Lines; Mr. S. J. Hungerford, C.M.G., former Chairman & President, C.N.R.; and Mr. R. C. Vaughan, C.M.G., Chairman & President, C.N.R.

B.T.C. Interests in Passenger Road Transport

On January 1 the Commission inherited from the railways a £10,000,000 investment in provincial buses

Although Sir Cyril Hurcomb, Chairman of the British Transport Commission, in announcing the broad outline of the organisation of the Road Transport Executive (as we recorded briefly last week) emphasised that the road haulage of freight is being tackled first as an urgent problem, passenger road transport is far from being overlooked. The Commission proposes to invite the Road Transport Executive to review the passenger road services operating in Great Britain, with a view to determining the areas with respect to which the Commission should submit schemes of co-ordination to the Minister of Transport. The actual determination of the areas will be reserved to the Commission, subject to the Minister's right himself to specify an area. In making such reviews, the Executive will give full consideration to any representations which the undertakings concerned desire to make, and will take into account the views of the local authorities.

The Commission is already interested, both as an operator, and as a large shareholder, in provincial passsenger road transport interests acquired from the main-line railway companies. On January 1, it became an actual bus owner and operator through the acquisition of those vehicles which were owned and operated in railway livery, such as the Sheffield-Gainsborough bus service of the L.N.E.R., and the railway proportions of the fleets worked in conjunction with such municipalities as Sheffield and Halifax.

The shareholdings in bus companies in some cases amount to 50 per cent., and are those which were acquired by the main-line railways at a cost of approximately £10,000,000. We reproduce for the last time our annual table of railway shareholdings in passenger road transport at December 31, 1947, showing earnings for the past year, but these earnings are not comparable with those shown in previous tables. Heretofore, the earnings have been shown as the annual profits distributed as dividends during the year under review. In 1946 these totalled £2,211,661. In respect of 1947, the earnings shown are both the profits distributed as dividends in 1947, and also those declared subsequently in respect of that year. They total £3,488,252, or an increase of no less than £1,276,591 over the previous year. Of this sum, £476,101 was declared after the end of the year, reducing for comparative purposes the net increase to £800,490. Nevertheless, these were most satisfactory returns on the capital outlay, and indicate what prosperous investments the British Transport Commission has secured in provincial bus operation.

Sir Cyril Hurcomb stated at his conference a fortnight ago that negotiations for acquiring a complete interest in certain cases are in progress. This was understood to mean the conversations which are at present taking place with Thomas Tilling Limited, as that company or its subsidiaries owns equivalent shareholdings to those of the B.T.C. in 22 provincial bus companies.

We have also prepared a table showing B.T.C. shareholdings at January 1, from which it will be seen that this amounts to £9,911,423 nominal, apart from the shares in David MacBrayne Ltd. (which is largely a shipping undertaking), and the actual ownership of the bus fleets worked in association with Yorkshire municipalities. This table also shows that the B.T.C. is financially interested in the operation of more than 18,000 buses.

In regard to both passenger and goods road transport, Sir Cyril Hurcomb has announced that steps are being taken to examine the means by which co-ordination by road and rail can best be secured. An examination of the rates structure in each industry is a necessary preliminary to the

RAILWAY SHAREHOLDINGS IN PASSENGER ROAD TRANSPORT AT DECEMBER 31, 1947, SHOWING EARNINGS FOR THE PAST YEAR

Associated company	Issued share capital	L.M.S.R.		L.N.E.R.		G.W.R.		S.R.	
		Holding	Earnings‡	Holding	Earnings‡	Holding	Earnings‡	Holding	Earnings‡
		£	£	£	£	£	£	£	£
Aldershot & District Traction Co. Ltd.	250,000 Ord.	—	—	—	—	—	—	82,721	25,230
W. Alexander & Sons Ltd.*	825,000 Ord.	112,500	102,500	112,500	102,500	—	—	—	—
	250,000 6% Par. Pref.	125,000		125,000					
Birmingham & Midland Motor Omnibus Co. Ltd.	1,440,000 Ord.	432,000	302,400	—	—	288,000	201,600	—	—
	100,000 8% Cum. Pref.	—	—	—	—	—	—	—	—
City of Oxford Motor Services Limited	226,000 Ord.	—	—	—	—	113,000	51,364	—	—
	74,000 6½% Cum. Pref.	—	—	—	—	—	—	—	—
Crosville Motor Services Limited	1,100,000 Ord.	412,071	76,608	—	—	137,357	25,536	—	—
Cumberland Motor Services Limited	150,000 Ord.	49,999	13,636	—	—	—	—	—	—
Devon General Omnibus & Touring Co. Ltd.	200,000 Ord.	—	—	—	—	40,917	22,504	27,279	15,004
	150,000 7% Cum. Pref.	—	—	—	—	—	—	—	—
Eastern Counties Omnibus Co. Ltd.	756,000 Ord.	25,288	3,448	184,106	25,105	—	—	—	—
	200,000 5% Cum. Red. Pref.	—	—	—	—	—	—	—	—
Eastern National Omnibus Co. Ltd.	900,000 Ord.	225,000	32,727	225,000	32,727	—	—	—	—
East Kent Road Car Co. Ltd.	450,000 Ord.	—	—	—	—	—	—	154,805	38,701
	200,000 6½% Cum. Pref.	—	—	—	—	—	—	—	—
East Midland Motor Services Limited	250,000 Ord.	41,667	18,940	83,333	37,879	—	—	—	—
East Yorkshire Motor Services Limited	300,000 Ord.	—	—	149,362	67,892	—	—	—	—
Hants & Dorset Motor Services Limited	550,000 Ord.	—	—	—	—	—	—	213,556	75,715
	150,000 6½% Cum. Pref.	—	—	—	—	—	—	—	—
Hebble Motor Services Limited	120,000 Ord.	45,000	11,250	15,000	3,750	—	—	—	—
Highland Transport Co. Ltd.†	29,750 Ord.	14,875	4,375	—	—	—	—	—	—
Lincolnshire Road Car Co. Ltd.	200,000 Ord.	19,985	3,815	79,931	15,260	—	—	—	—
Maidstone & District Motor Services Limited	750,000 Ord.	—	—	—	—	—	—	265,992	66,273
	200,000 6½% Cum. Pref.	—	—	—	—	—	—	—	—
Northern General Transport Co. Ltd.	831,081 Ord.	—	—	367,110	113,689	—	—	—	—
	300,000 6½% Cum. Pref.	—	—	—	—	—	—	—	—
North Western Road Car Co. Ltd.	750,000 Ord.	248,888	81,454	124,444	40,727	—	—	—	—
Ribble Motor Services Limited	1,200,000 Ord.	530,745	137,992	—	—	—	—	—	—
	200,000 6½% Cum. Pref.	—	—	—	—	—	—	—	—
Scottish Motor Traction Co. Ltd.	1,005,979 Ord. Stock	251,494	251,495	251,495	251,495	—	—	—	—
	1,000,000 6½% Cum. Pref.	—	—	—	—	—	—	—	—
Southdown Motor Services Limited	750,000 Ord.	—	—	—	—	—	—	242,792	60,698
Southern National Omnibus Co. Ltd.	542,200 Ord.	—	—	—	—	—	—	271,100	76,401
Southern Vectis Omnibus Co. Ltd.	115,000 Ord.	—	—	—	—	—	—	57,500	20,909
	15,200 6% Cum. Pref.	—	—	—	—	—	—	15,000	900
Thames Valley Traction Co. Ltd.	250,000 Ord.	—	—	—	—	85,191	36,400	36,510	15,600
Trent Motor Traction Co. Ltd.	540,288 Ord.	150,543	69,198	75,272	34,593	—	—	—	—
United Automobile Services Limited	1,627,233 Ord.	—	—	798,412	256,814	—	—	—	—
	150,000 7% Cum. Pref.	—	—	39,622		—	—	—	—
Western National Omnibus Co. Ltd.	2,000,000 Ord.	—	—	—	—	1,000,000	187,636	—	—
	400,000 6% Cum. Pref.	—	—	—	—	400,000		—	—
Western Welsh Omnibus Co. Ltd.	507,500 Ord.	—	—	—	—	253,750	59,977	—	—
West Yorkshire Road Car Co. Ltd.	787,500 Ord.	195,843	78,337	195,843	78,337	—	—	—	—
	200,000 6½% Cum. Pref.	—	—	—	—	—	—	—	—
Wilts & Dorset Motor Services Limited	120,000 Ord.	—	—	—	—	—	—	30,724	22,065
Yorkshire Traction Co. Ltd.	437,500 Ord.	107,289	60,798	107,289	60,798	—	—	—	—
	24,350 7% Non. Cum. Pref.	4,662		4,661		—	—	—	—
Yorkshire Woollen District Transport Co. Ltd.	528,000 Ord.	176,000	76,800	88,000	38,400	—	—	—	—
	Totals	3,168,849	1,325,773	3,026,380	1,159,966	2,318,215	585,017	1,397,979	417,496

* W. Alexander & Sons Ltd. ordinary shares are 15s.
† Highland Transport Co. Ltd. shares are 17s. The L.M.S.R. holds 17,500 ordinary shares
‡ Profits distributed as dividends in 1947, or declared subsequently in respect of that year

formulation of new charges schemes which have to be submitted to the Transport Tribunal for approval; this examination has been begun.

Full use will be made of the knowledge and experience available in the transport industry itself, and, in building up the administrative and operating staff of the Road Transport Executive, it will be the aim of both the Commission and the Executive to use to the greatest possible extent the existing personnel of the undertakings which will be transferred to them.

In all appropriate ways, they also desire to consult the representative organisations of the industry on matters of common interest.

The Road Transport Executive has in mind the question of the relationship of the new organisation with its staff, and meanwhile the existing procedure governing employment relations within the road transport industry will be continued.

To some extent the statements made in the three preceding paragraghs apply particularly for the time being to the goods haulage industry rather than to passenger road transport, but we understand that the general principles enunciated therein are those which the British Transport Commission and its Road Transport Executive will adopt, if and when it becomes a provincial bus operator on a large scale. Similar policy would guide any area co-ordination schemes that may be adopted in the future.

BRITISH TRANSPORT COMMISSION INTERESTS IN PASSENGER ROAD TRANSPORT

Associated undertaking	Issued share capital	B.T.C. holding	Approx. No. of vehicles
	£	£	
Aldershot & District Traction Co. Ltd.	250,000 Ord.	82,721	305
W. Alexander & Sons Ltd.	825,000 Ord.*	225,000	1,248
	250,000 6% Par. Pref.	250,000	
David Lawson Limited			
Birmingham & Midland Motor Omnibus Co. Ltd.	1,440,000 Ord.	720,000	1,453
	100,000 8% Cum. Pref.	—	
City of Oxford Motor Services Limited	226,000 Ord.	113,000	216
	74,000 6½% Cum. Pref.	—	
Crosville Motor Services Limited	1,100,000 Ord.	549,428	1,122
Cumberland Motor Services Limited	150,000 Ord.	49,999	233
Devon General Omnibus & Touring Co. Ltd.	200,000 Ord.	68,196	249
	150,000 7% Cum. Pref.	—	
Eastern Counties Omnibus Co. Ltd.	756,000 Ord.	209,394	620
	200,000 5% Cum. Red. Pref.	—	
Norwich Omnibus Company			
Eastern National Omnibus Co. Ltd.	900,000 Ord.	450,000	518
East Kent Road Car Co. Ltd.	450,000 Ord.	154,805	466
	200,000 6½% Cum. Pref.	—	
East Midland Motor Services Limited	250,000 Ord.	125,000	161
East Yorkshire Motor Services Limited	300,000 Ord.	149,362	236
Halifax Joint Omnibus Committee	—	—	—
Hants & Dorset Motor Services Limited	550,000 Ord.	213,556	377
	150,000 6½% Cum. Pref.	—	
Hebble Motor Services Limited	120,000 Ord.	60,000	75
Highland Transport Co. Ltd.	29,750 Ord.†	14,875	65
Huddersfield Joint Omnibus Committee	—	—	96
Lincolnshire Road Car Co. Ltd.	200,000 Ord.	99,916	294
David MacBrayne Limited	—	—	67
Maidstone & District Motor Services Limited	750,000 Ord.	265,992	628
	200,000 6½% Cum. Pref.	—	
Chatham & District Traction Company			49
Hastings Tramways Company			48
Northern General Transport Co. Ltd.	831,081 Ord.	367,110	484
	300,000 6½% Cum. Pref.	—	
Sunderland District Omnibus Co. Ltd.			83
Tynemouth & District Transport Co. Ltd.			47
Tyneside Tramways & Tramroads Company			20
Wakefields Motors Limited			10
North Western Road Car Co. Ltd.	750,000 Ord.	373,332	492
Ribble Motor Services Limited	1,200,000 Ord.	530,745	1,035
	200,000 6½% Cum. Pref.	—	
W. C. Standerwick Limited			60
Scottish Motor Traction Co. Ltd.	1,005,979 Ord. Stock	502,989	603
	1,000,000 6½% Cum. Pref.	—	
Central S.M.T. Co. Ltd.			400
Lanarkshire Traction Co. Ltd.			70
Western S.M.T. Co. Ltd.			496
Greenock Motor Services Company			
Rothesay Tramways Co. Ltd.			
W. & R. Dunlop Limited			
Sheffield Joint Omnibus Committee	—	—	145
Southdown Motor Services Limited	750,000 Ord.	242,792	789
Southern National Omnibus Co. Ltd.	542,200 Ord.	271,100	358
Southern Vectis Omnibus Co. Ltd.	115,000 Ord.	57,500	120
	15,200 6% Cum. Pref.	15,000	
Thames Valley Traction Co. Ltd.	250,000 Ord.	121,701	204
Ledbury Transport Co. Ltd.			26
Todmorden Joint Omnibus Committee	—	—	38
Trent Motor Traction Co. Ltd.	540,288 Ord.	225,815	361
United Automobile Services Limited	1,627,233 Ord.	798,412	900
	150,000 7% Cum. Pref.	39,622	
Orange Bros. Ltd.			12
Western National Omnibus Co. Ltd.	2,000,000 Ord.	1,000,000	609
	400,000 6% Cum. Pref.	400,000	
Bristol Tramways & Carriage Co. Ltd.			1,105
Bath Electric Tramways Limited			
Bath Tramways Motor Co. Ltd.			150
Western Welsh Omnibus Co. Ltd.	507,500 Ord.	253,750	550
West Yorkshire Road Car Co. Ltd.	787,500 Ord.	391,686	381
	200,000 6½% Cum. Pref.	—	
Keighley-West Yorkshire Services Limited			53
Wilts & Dorset Motor Services Limited	120,000 Ord.	30,724	191
Yorkshire Traction Co. Ltd.	437,500 Ord.	214,578	303
	24,350 7% Non.-Cum. Pref.	9,323	
Yorkshire Woollen District Transport Co. Ltd.	528,000 Ord.	264,000	286
County Motors (Lepton) Limited			
	Totals	9,911,423	18,907

* W. Alexander & Sons Ltd. 1,100,000 Ordinary Shares at 15s., of which the Scottish Motor Traction Co. Ltd. holds 600,000.

† Highland Transport Co. Ltd. 35,000 Shares at 17s., of which the British Transport Commission holds 17,500

B. & C.D. Stockholders' Reply to Ministers' Statement

A statement signed by Mr. F. R. M'Master, Chairman of the Belfast & County Down Railway Stockholders' Protection Association, has been issued in reply to comments of the Northern Ireland Minister of Commerce on allegations regarding the railway sale negotiations made at the company's meeting. The Minister's statement and the meeting were reported in our March 12 issue.

The association's statement says: "The association confirms that the stockholders were given no information whatever about the negotiations and were not aware of the impending sale until January 21 last, when it was announced that 'the directors of the B.C.D.R. had agreed to sell the undertaking.'

"It now appears from Sir Roland Nugent's statement that negotiations for sale had been going on since September, 1946, and that the directors had not only agreed to the sale, but had taken it upon themselves to refuse an alternative offer.

"The directors decided that the purchase price of £485,989 9s. 5d. is fair and reasonable (1) without the knowledge or approval of the stockholders; (2) without obtaining independent expert advice as to the value of the stockholders' property which they were proposing to dispose of; (3) under the misconception that the Government had powers of confiscation under the 1947 Act; (4) in the mistaken belief that the Government intended to exercise such alleged powers in an arbitrary manner; (5) without giving the stockholders the opportunity of considering the alternative offer to purchase the railway company in exchange for shares in the new undertaking.

"The directors attempted to justify their action (*a*) by statements which led the stockholders to believe that any expression of their opinion would have no effect; and (*b*) by inducing the stockholders to record a vote of approval of the directors' report by sending out proxies prepared in favour of three of the directors and accompanied by a prepaid envelope for reply.

"The Stockholders' Protection Association does not consider that any agreement made in these circumstances is either fair or reasonable. The directors have thus placed themselves in an invidious position."

SINK OR SWIM?—When the Economic Survey for 1947 appeared twelve months ago, the country was gripped in ice and *The Economist* had been silenced by the Shinwell veto. Spirits were low; the outlook was dark; and the Government's collection of targets and estimates was frustrated at the very moment of its appearance. The Economic Survey for 1948 appears at a moment even more critical for British destiny. The British economy is denuded; it is now using up its last reserves; and the Government have brought themselves frankly to the devastating admission that "without further substantial external aid" there is no hope of economic stability and a reasonable standard of life within the next few years. Unless aid comes, wholesale unemployment, distress and the dislocation of production will delay "for years" the prospect of a decent standard of living for the British people. There is only one thing wrong with this assessment. The delay would not be for years; it would be for all time.—From *The Economist*, March 13, 1948.

Mansion House Association on Transport

The Minister of Transport, Mr. Alfred Barnes, M.P., was the principal guest at the annual luncheon of the Mansion House Association on Transport, which was held on Friday last at the Connaught Rooms, London, W.C.2. Mr. W. H. Gaunt, President of the Association, was in the chair.

Among those who accepted invitations to be present were:—

Lord Ashfield, Messrs. M. F. Barnard, John Benstead, Miles Beevor, C. K. Bird, C. A. Birtchnell, David Blee, Sir Leonard Browett, Messrs. L. J. Callaghan, A. L. Castleman, Sir George P. Christopher, Messrs. G. L. Darbyshire, H. G. Dutfield, Sir Alfred Faulkner, Mr. K. W. C. Grand, The Hon. A. R. Guinness, Sir Frederick Handley-Page, Sir Reginald Hill, Sir Cyril Hurcomb, Colonel A. Jerrett, General Sir Wilfred Lindsell, Mr. T. J. Lynch, Sir Archibald McKinstry, Mr. E. G. Marsden, Sir Herbert Matthews, Mr. J. R. Pike, Mr. Gleeson E. Robinson, Lord Rusholme, Major-General G. N. Russell, Messrs. D. G. Sofio, S. R. Vigor, Brigadier A. E. M. Walter.

The President said that many of their members might have seen the present developments in the transport field coming for some time. He felt that no person in the transport industry would be doing his duty to himself or to the nation if he held aloof from the Association. Times had changed in the last 40 years and a position had been reached in which Government was going to decide matters for users of transport. Traders, therefore, had the duty of putting their knowledge and experience at the disposal of the Minister and assuring that he had the basic data on which to make right decisions

He paid a warm tribute to Mr. Barnes for the friendly manner in which he had discussed problems with representatives of traders, and said that the Mansion House Association had the greatest appreciation of the Minister's sense of fairness and reasonableness, and they placed considerable reliance on his judgment in many ways.

Mr. Alfred Barnes, in replying to the toast, said that in framing the Transport Act a good deal of trouble had been taken to ensure that the Minister would be kept above the battle. He was carefully protected from any tendency to interfere with the day-to-day managerial processes. The responsibility for conducting transport, as regards policy, had been placed on the shoulders of the Commission, and as regards day-to-day management on those of the Executives. That placed the Minister in the happy position of being able to take the credit if things went as they should, and if things went wrong he could always turn to Sir Cyril Hurcomb and ask him why.

He would like to touch on the problem of the "C" licence-holder. He asked his hearers to remember that whatever developments might take place in transport it would always be essential to ensure that the main-line railways should be maintained in a state of efficiency not only to carry the bulk traffics which were vital to the industries of the country, but also that they should be able to have reserves on which they could call as they had had to do during the recent war.

There had been an increase of more than 100,000 "C" licences since the end of the war. There might be a number of reasons for this, and he did not take too serious a view of the situation, because he knew some of the factors which might be involved, but he would impress on traders the need to be inspired with a sense of responsibility and to see that "C" licences were not applied for unless their business costs, plus the service which they enabled to be given to their customers, were such as to make application for "C" licence facilities desirable. In other cases they should use the services provided by the Commission and bring their influence to bear on that body to see that these services were efficient and sufficient.

It should not be forgotten that this country had £100,000,000 of public money invested in its transport undertakings, and that the railways must always be kept in a state of efficiency. That capital investment was bound to increase as improvements took place. No development could be permitted which would bring down the efficiency of the principal lines of transport.

Mr. M. F. Barnard proposed the toast of the new régime, and said that so far as he could see there were no square pegs in round holes; indeed the management and the set-up was not new; it was really a case of the old management with the new look.

Sir Cyril Hurcomb said that it was only six months since the British Transport Commission had been constituted, and little more than two months since its responsibilities had formally devolved on it. Some people were agitated lest time and money should be wasted on painting railway rolling stock, but his view was that a good deal of railway property could do with a coat of paint. The Commission was not going to spend money heedlessly; it intended to paint 200 coaches and 50 locomotives and to run these on the principal services so that the public and the staffs could express their opinion before a standard was fixed.

The Commission was of opinion that a great deal could be done to increase the efficiency of British transport services, and it was intended to move towards this end as quickly as present circumstances permitted. The smoothness of the transition which had taken place in the case of the railways and of the canals should not disguise the very real changes which had been made. It must not be assumed that large economies followed automatically from large amalgamations. Organisations had to be adapted to make this possible, and this was being done. Most careful thought had been given to the organisation of the various Executives and it was felt that what had been done was likely to bring about real advantages. The initial steps had already been taken to begin the integration of rail, road and inland water services.

New Ships for Southern Region I.O.W. Service

Two new motor passenger vessels to replace the *Southsea* and the *Portsdown*, lost during the war, and to cater for passenger traffic between Portsmouth and Ryde, now running at the rate of three million a year, were launched at Dumbarton recently. The ships, named *Southsea* and *Brading*, are expected to be ready for use on this British Railways (Southern Region) service by the end of this year.

With a carrying capacity of 1,400 passengers each, the vessels will be the largest ever introduced on the Portsmouth-Ryde route, and the first screw vessels to be used on this service. The overall length is 200 ft., breadth overall 47 ft. 8 in., and depth, moulded to main deck, 10 ft. 6 in. The vessels are designed to run at 14½ knots.

Propelling machinery will consist of two Sulzer diesel engines driving twin propellers. The engines will be reversible, but, due to the large amount of manœuvring necessary on the service, reversing will normally be by a S.L.M. gearbox fitted to each engine. All engine-room and deck auxiliaries will be electrically operated, current being supplied by three 60-kW. diesel-driven generators. An automatic, oil-fired, vertical boiler will supply steam for heating and passenger amenities.

Twin rudders, operated by electro-hydraulic steering gear with twin motors and pumps, will give the ample steering power required in the confined waters in which these vessels will operate.

Features of the new ships will be generous open deck space, large refreshment rooms and comfortable lounges. Accommodation will be provided for the conveyance of miscellaneous luggage, and of milk, perishable traffic, mails and general commodities. With the new ferry, *Farringford* (see our March 12 issue), these ships will bring the number of new vessels introduced this year by the Southern Region on the Isle of Wight service to three.

The *Southsea* and the *Brading* were launched respectively by Mrs. John Elliot, wife of the Chief Regional Officer, Southern Region; and by Mrs. Oliver V. Bulleid, wife of the Chief Mechanical Engineer. At a luncheon after the launching ceremony, Sir Maurice Denny, Chairman of William Denny & Bros. Ltd., said that this was his company's first launch of tonnage for British Railways. Mr. John Elliot said that, though politically many were against nationalisation, now that it was the law of the country they would do their best to make a success of the undertaking. Mr. O. V. Bulleid also spoke at the luncheon. (See also illustration on page 362.)

EASTER TRAIN ARRANGEMENTS, WESTERN REGION.—The Western Region will run over 200 extra main-line trains during the period from March 24 to March 30. On Thursday, March 25, there will be 13 relief trains to the West Country, 11 to South Wales, and 6 to the Midlands and North, as well as special services, one of which will start at Ealing Broadway at 5.25 p.m. for Newport, Cardiff and Swansea, calling also at Southall, Hayes, West Drayton, Slough, Reading and Didcot. This arrangement will relieve congestion at Paddington by enabling passengers to join the train at their local stations, avoiding the necessity of a journey into London. There will be a modified Sunday service on Good Friday, and a weekday service, with some business train cancellations, on Easter Saturday. Extra main-line trains will run to Paddington on the remaining days of the holiday. There will be no sailing from Fishguard to Waterford on Good Friday night, or from Waterford to Fishguard on Saturday night. Sailing tickets will be required for sailings from Fishguard to Waterford and Rosslare between March 19 and 24, and in the return direction they will be necessary between March 30 and April 3.

Questions in Parliament

Reservations of Sleeping Berths

Mr. R. R. Stokes (Ipswich—Lab.) on February 23 asked the Minister of Transport how many first class sleeping berths for the week ending February 14 were occupied by Senior Civil Servants and how many by business and professional men travelling on Government reservations.

Mr. Alfred Barnes, in a written answer, stated: Ninety and 358 respectively; that is, 1¼ per cent. and 4¾ per cent. of the total number of first class berths available.

Wages in Railway Conciliation Grades

Mr. W. McAdam (Salford North—Lab.) on February 23 asked the Minister of Transport what were the present standard rate of wages in the railway conciliation grades; and the comparable rates for those grades covering a similar period after the 1914-18 war.

Mr. Alfred Barnes (Minister of Transport), in a written answer, stated: The answer involves the preparation of a rather lengthy statement. The British Transport Commission are putting this in hand and they have informed me that they will forward it to Mr. McAdam as soon as it is completed.

Snow Clearance on Railways and Roads

Lt.-Colonel Sir Thomas Moore (Ayr Burghs—C.) on March 1 asked the Minister of Transport to what extent the arrangements made, in the light of last winter's experience, for clearing roads and railways of heavy snowfalls had proved successful during the past few days.

Mr. Alfred Barnes: Conditions during the past week have not been unduly severe, but the preparations made enabled the situation to be tackled with speed and efficiency, and no serious or prolonged blockages occurred.

Sir Thomas Moore: The Minister will appreciate that this question was put down before spring arrived?

Mr. Barnes: I want to thank Sir Thomas Moore for enabling me to make that statement.

"C" Licences

Mr. Ernest Davies (Enfield—Lab.) on March 1 asked the Minister of Transport if he would state the number of applications for "C" licences made during 1947 and the number granted; and the increase this represented over the number in issue at December 31, 1946.

Mr. Alfred Barnes (Minister of Transport): There were 253,548 "C" licensed operators and 487,151 "C" licensed vehicles on December 26, 1947, showing an increase of 55,769 operators and 103,413 vehicles since December 27, 1946.

Mr. Davies: In view of this very large increase in "C" licensed vehicles during the 12 months referred to, and the consequent increase in the consumption of fuel, does the Minister consider taking any steps at the present time to stop this increase continuing?

Mr. Barnes: No, I should not think it is necessary to take any steps at the present moment. Mr. Davies will recollect that during the passage of the Transport Act it was indicated that this process would necessarily be studied.

Captain Peter Thorneycroft (Monmouth—C.): Will the Minister give a perfectly plain assurance, not only at this moment, but in the future, that in no circumstances whatever will he try to preserve his transport monopoly by attacking "C" licences?

Mr. Barnes: I do not think that I can say anything further on what I said during that stage of the Transport Act.

Mr. Ernest Davies (Enfield—Lab.) on March 1 also asked the Minister of Transport what was the number of "C" licences issued in January, 1948.

Mr. Barnes: 5,444 new "C" licences were issued in January, 1948.

Mr. Davies: Does not the Minister realise that the issue of "C" licences is increasing progressively, and that the time will come when the situation calls for alteration?

Mr. Barnes: I do not think that I can add anything further to what I have just said.

Railway Revenue

Lt.-Colonel Granville Sharp (Spen Valley—Lab.) on February 9 asked the Minister of Transport by how much the increase in railway revenue during the last three months of 1947 fell short of his estimate of £15½ million; whether he had now revised his estimate of £65 million increased revenue for 1948; and what was the new figure.

Mr. Alfred Barnes stated in a written answer: The figure for the yield, in 1947, of the increases in charges brought into operation on October 1, 1947, is not yet available, but will be published in the White Paper showing the results of the pool account for 1947. The estimate of a yield of £65 million in 1948, was based on estimates of traffic receipts supplied by the railway companies. The total traffic receipts of British Railways for the first four weeks of 1948 have already been published, but I am not in a position to give Lt.-Colonel Sharp a fresh forecast of what the yield from increases in charges will amount to over the whole year.

Public Relations Officers

Lt. William Shepherd (Bucklow—C.) on March 2 asked the Financial Secretary to the Treasury what were the totals of Public Relations Officers employed by Government departments and Government corporations in the years 1938 and 1946 respectively; and what was the annual cost in both years.

Mr. Glenvil Hall, Financial Secretary to the Treasury, in a written answer gave the following information:—

PUBLIC RELATIONS OF ICERS EMPLOYED BY GOVERNMENT DEPARTMENTS IN 1938 AND 1946

1938		1946	
Number	Cost	Number	Cost
	£		£
16	16,280	30	42,733

Notes

(i) These figures relate to heads of information divisions in Government departments (styled in some departments "Public Relations" or "Publicity").

(ii) The 1946 figures do not include Central Office of Information staff. The Central Office is not concerned with public relations work in the same way as other departments and is primarily a common service department providing expert technical facilities.

(iii) Public relations officers of nationalised undertakings are not included; the provision of information about these officers is the responsibility of the organization concerned.

Repair of Railway Wagons

Lieutenant-Colonel D. A. Price-White (Carnarvon Boroughs—C.) on February 23 asked the Minister of Transport how many boat-building and repairing yards in the north-eastern area of Scotland had been wholly or partially converted to the work of repairing railway wagons; and whether similar repair work could be diverted to similar yards in other parts of the country and in particular in the North Wales area.

Mr. Alfred Barnes, in a written answer, stated: The capacity offered in North-Eastern Scotland had to be declined as the supply of materials is insufficient to allow existing facilities to be developed to the fullest extent. The British Transport Commission have informed me that, in these circumstances, it is not possible at present to offer wagon repairing work to yards in North Wales or in other parts of the country.

Letters to Members of Parliament

Lieutenant-Commander J. A. Langford-Holt (Shrewsbury—C.) on February 23 asked the Minister of Transport whether he would direct the Transport Commission to forward a duplicate copy of all letters sent to Members of Parliament.

Mr. Alfred Barnes (Minister of Transport), in a written answer, stated: I have brought Commander Langford-Holt's suggestion to the attention of the British Transport Commission, and they have informed me that they are acting in the manner proposed.

Government Advertising

Mr. L. D. Gammans (Hornsey—C.) on March 2 asked the Financial Secretary to the Treasury what were the total amounts spent in 1938 and 1947, respectively on Government advertising in the press, by posters, films, or by any other means.

Mr. Glenvil Hall gave the following information in a written answer:—

EXPENDITURE ON ADVERTISING BY GOVERNMENT DEPARTMENTS IN THE CALENDAR YEARS 1938 AND 1947

	£ (000)	
	1938	1947 (estimated)
Press and posters	257	2,948
Films	38	616
Other	164	811
Totals	459	4,375

Notes

(1) All the above figures include a percentage allowance for staff costs.

(2) The figures do not include expenditure on oversea advertising by the oversea departments, nor expenditure by the Central Office of Information in 1947 attributable to oversea publicity.

(3) In the case of media other than press and posters the figures shown represent expenditure on external publicity only (for example, expenditure on training films is excluded).

Curtains and Blinds on Passenger Vehicles

Mr. J. A. Sparks (Acton—Lab.) on February 9 asked the Minister of Transport if he would request the British Transport Commission to discontinue the use of curtains and blinds in railway and road passenger vehicles, except railway sleeping and dining cars, as these articles were unnecessary for the comfort of the travelling public and additional materials would thereby be made available for the export and home market.

Mr. Alfred Barnes stated in a written answer: I am drawing the attention of the British Transport Commission to Mr. Sparks' question.

Transport of Sugar

Mr. C. Osborne (Louth—C.) on February 2 asked the Minister of Food why, in view of the shortage of railway rolling stock and of shipping, he was transporting large quantities of sugar 70 miles from Peterborough to Grimsby, and then 200 miles by sea to London, when the direct railway journey to London was only 80 miles.

Mr. John Strachey (Minister of Food) in a written answer stated: This movement is part of the programme of movement of sugar from sugar beet factories to the refineries which was planned as a whole in consultation with the railways. The use of direct rail from Peterborough would have involved transfer to river craft in London, and added to railway difficulties.

Notes and News

Traffic Inspector Required.—A traffic inspector, between 23 and 35 years of age, is required by the Government of Nigeria for the railway department for one tour of 18 to 24 months with possible permanency. See Official Notices on page 363.

Technical Assistants for Track Surveying Work Required.—Two technical assistants for track surveying work in connection with the Manchester—Sheffield—Wath electrification are required. See Official Notices on page 363.

Increased Rate for Lime Carriage by Road.—As a result of negotiations between the Ministry of Agriculture and the Road Haulage Association, the Agriculture Lime Department has agreed to an increase of 5 per cent. in rates for the carriage of lime by road.

Draughtsman (Civil Engineering) Required.—A draughtsman (civil engineering) is required by the Nigerian Government Railway for 18 to 24 months, with prospect of permanency. Candidates must have had at least five years' experience in the drawing office of a civil engineering railway department, or consulting engineers or contractors with practice in railway work. See Official Notices on page 363.

Embargo on Traffic for Queensland.—The New South Wales Trades & Labour Council decided unanimously on March 4 that no goods should be carried by the railways of New South Wales to or from Queensland as from midnight on March 5. The council agreed to exempt mail and passenger traffic. This action arose in connection with the strike of railway and others workers in Queensland, the resumption of work reported in our March 5 issue having been only partial.

Leopoldina Strike Settlement.—Reuters reports that the settlement in the recent strike on the Leopoldina Railway (see our February 27 issue) is of a temporary kind. The company is to pay what is described as "a fairly considerable contribution" to an organisation which finances bulk purchases of foodstuffs and retails them to workers at reduced prices. It has been stated that the wage demands made by the workers would have cost the railway about £1,200,000 a year.

Poster Display at Waterloo.—A display of Spring posters was opened on the concourse, Waterloo Station, Southern Region, on March 15. The new posters are appearing currently at Southern Region stations and depict resorts in the Channel Islands, South-West England, and on the South Coast.

Collision at South Bermondsey, Southern Region.—Two Southern Region electric passenger trains, travelling in the same direction, came into collision at South Bermondsey on March 11. One of the coaches dislodged brickwork on the side of the bridge which carries the line over the Rotherhithe New Road. There were no casualties, but there was some delay to the evening rush-hour services at London Bridge Station.

Model Railway Club Exhibition.—The annual exhibition of the Model Railway Club is being held in the Central Hall, Westminster, from March 30 until April 3, inclusive. It is expected that some 3,000 models will be exhibited, among which there will be a number of unfinished models so that the methods of construction may be studied. Special sections are devoted to models of foreign prototypes and of free-lance design. The opening hours are 2 p.m. to 9 p.m. on Tuesday, March 30, and 11 a.m. to 9 p.m. from Wednesday to Saturday.

Permanent Way Institution, New East Anglian Section.—A meeting of the London Section of the Permanent Way Institution was held in the Public Library Lecture Room, Ipswich, on Saturday, March 13, under the chairmanship of Mr. J. I. Campbell, M.Inst.C.E., Civil Engineer, Eastern Region. The keen interest displayed by railwaymen throughout the Eastern Counties in the activities of the Institution was evidenced by the exceptionally large attendance at the meeting, and it was decided unanimously to proceed with the formation of an East Anglian Section. The new section is to hold its meetings at Ipswich, Norwich, and Cambridge, and it is hoped that this arrangement will bring membership of the Institution within the reach of many who find it difficult to make the journey to London. The formal business was followed by an exhibition of films depicting track renewal and maintenance and weed killing.

Princess Elizabeth Sees Own Coach.—Princess Elizabeth saw her personal coach, numbered M 45005, on a recent visit to the L.M.R. carriage and wagon works at Wolverton, where the Royal Train normally is stabled. The coach, which is one of a pair, was used by Mr. Churchill during the war. Both coaches are painted in bright maroon, with a double line of gold leaf divided by a black line; each contains four bedrooms, a bathroom, a lounge and a dining room. The Princess was escorted by Mr. H. G. Ivatt, M.I.Mech.E., Chief Mechanical Engineer, and Mr. A. E. Peters, Works Superintendent, and several workers were presented to her.

Winding Up of Central Argentine Railway.—An extraordinary general meeting of the Central Argentine Railway Limited will be held at Winchester House, Old Broad Street, London, E.C.2, at 12.15 p.m. on April 2, to receive resolutions for the voluntary winding up of the company. The resolutions propose the appointment of Mr. B. H. Binder and Mr. A. S. Matthews as liquidators, and would give them powers to pay any classes of creditors in full; to make compromises or arrangements with creditors and claimants against the company; and generally to compromise claims as between the company and debtors, and questions relating to or affecting the assets or the winding up.

New Air Brake Demonstration.—A demonstration was arranged on March 3 by the Laycock Engineering Co. Ltd. of the new Laycock/Neale air brake, which has been fitted to a bus belonging to the Sheffield Corporation Transport Department, and has been in regular and general service for over two years. The demonstration was carried out in collaboration with Crossley Motors Limited. Visitors to the demonstration made a trip in the bus over a severe route, concluding with a descent of a long and steep gradient with the gear lever in neutral, the air reservoir being relied on entirely for service and emergency stops. A version of the brake suitable for electric railway stock is under construction by the Laycock Engineering Co. Ltd.

Paraguay Central Railway Co. Ltd.—The report for the year ended June 30, 1947, shows gross receipts of £267,711, an increase of £12,833. Working expenses, however, increased by £68,736 to £281,108, giving a deficit on working of £13,397, compared with an operating surplus of £42,506 in the preceding year. After making allowance for interest, dividends, and sundry receipts during the year, the revenue deficit is £4,502 and the addition of fixed charges brings this figure up to £53,500, giving a total debit balance on net revenue of £58,002. The debit balance brought forward from the previous year was £185,104, making the total debit to be carried forward £243,106. The higher gross earnings were due, in part, to an increase in the number of passengers carried, and partly to higher tariffs for passenger and goods traffic, which came into force in December, 1946. Working expenses increased out of all proportion to gross earnings on account of a heavy in-

Southern Region Officers' Wives at Dumbarton Launching

Mrs. O. V. Bulleid (left) and Mrs. John Elliot (right) with Sir Maurice Denny at the launching of the "Southsea" and "Brading" (see page 360)

OFFICIAL NOTICES

None of the vacancies on this page relates to a man between the ages of 18 and 50, inclusive, or a woman between the ages of 18 and 40, inclusive, unless he, or she, is excepted from the provisions of the Control of Engagement Order, 1947, or the vacancy is for employment excepted from the provisions of that Order.

REQUIRED.—Two Technical Assistants for Track Surveying work in connection with Manchester—Sheffield—Wath electrification. Applicants should have had experience in surveying, and should have passed the preliminary examination of the Institution of Civil Engineers or other equivalent examination. Salary according to age and qualifications, and engagement on a temporary basis. Applications in writing, stating age, experience, etc., with copies of recent testimonials, to the CIVIL ENGINEER, STAFF SECTION, RAILWAY EXECUTIVE, EASTERN REGION, Kings Cross Station, London, N.1.

REQUIRED for work in London. Assistants (Senior and Junior) experienced in design and building, undertake surveys and the preparation of detailed working drawings, calculations, estimates and specifications for all works in connection with bridges and structure. Engagement on a temporary basis at a salary of up to £12 per week, according to qualifications and experience. Applications stating age, experience, etc., with copies of recent testimonials, to Box 23, *The Railway Gazette*, 33, Tothill Street, Westminster, London, S.W.1.

Crown Agents for the Colonies

APPLICATIONS from qualified candidates are invited for the following post:—

DRAUGHTSMAN (Civil Engineering) required by Nigerian Government Railway for 18 to 24 months, with prospect of permanency. Commencing salary according to experience, in scale £600 to £970, including expatriation pay. Outfit allowance £60. Free passages. Candidates must have had at least five years' experience in drawing office of a Civil Engineering Railway Department (or Consulting Engineers or Contractors with practice in railway work). Knowledge of design and construction details of civil engineering structures and railway trackwork is required, including ability to take off quantities, prepare estimates and draft general specifications. Apply at once by letter, stating age, whether married or single, and full particulars of qualifications and experience, and mentioning this paper, to the CROWN AGENTS FOR THE COLONIES, 4, Millbank, London, S.W.1, quoting M/N/17417/3D on both letter and envelope.

TRANSPORT ADMINISTRATION IN TROPICAL DEPENDENCIES. By George V. O. Bulkeley, C.B.E., M.I.Mech.E. With chapters on Finance, Accounting and Statistical Method. In collaboration with Ernest J. Smith, F.C.I.S., formerly Chief Accountant, Nigerian Government Railway. 190 pages Medium 8vo. Full cloth. *Price* 20*s*. *By post* 20*s*. 6*d*.

Crown Agents for the Colonies

APPLICATIONS from qualified candidates are invited for the following post:—

TRAFFIC INSPECTOR required by the Government of Nigeria for the Railway Department for one tour of 18 to 24 months, with possible permanency. Salary and expatriation allowance £600, rising to £800 a year. Outfit allowance £60. Free passages. Candidates, age 23 to 35, must have had experience on a home railway of goods and passenger station work and accounts, telegraph offices and marshalling yards, and must be qualified in train working under the absolute block system and in railway signalling. Apply at once by letter, stating age, whether married or single, and full particulars of qualifications and experience, and mentioning this paper, to the CROWN AGENTS FOR THE COLONIES, 4, Millbank, London, S.W.1, quoting M/N/17525 (3E) on both letter and envelope.

THE CORONATION SCOT. New 4-6-2 locomotive and 9-coach trains built specially for working the L.M.S.R. accelerated 6½-hour express service. Paper. 12 in. by 9 in. 16 pp. Folding plate. Illustrations and diagrams. 3*s*. *By post* 3*s*. 2*d*.

THE FIRST PASSENGER RAILWAY. By Charles E. Lee. A history of the Swansea & Mumbles Railway, which extends over 136 years. Cloth. 8¼ in. by 5¼ in. 91 pp. Illustrated. 5*s*. *By post* 5*s*. 3*d*.

crease in wages, the provision for an annual bonus to employees, decreed by the Paraguay Government, and the rise of the cost of materials and operating expenses generally.

Wagon Turn-Round Time.—On Tuesday, March 16, Mr. P. A. White, Assistant to Superintendent, Southern Region, read a paper on "Wagon Turn-Round Time" before the Industrial Transport Association at the Royal Society of Arts.

Continental Holidays in 1948.—Sir Stafford Cripps, Chancellor of the Exchequer, announced in the House of Commons on March 16 that the following countries would be open to British tourists from May 1: Austria, Denmark, France, Italy, the Netherlands, Norway, Portugal, and Switzerland. The foreign currency allowance for travellers will be the equivalent of £35 for adults and £25 for children.

Road Haulage Association.—The clearing house group of the Road Haulage Association has invited all clearing houses, whether or not they are members of the Association, to be present as visitors at the annual general meeting, which is to be held at 2.15 p.m. on Tuesday, April 6, in the Staff Restaurant, Castle Chambers, 15, Elizabeth Street, London, S.W.1. Clearing houses are also invited to be represented at a luncheon which will precede the meeting, and applications for tickets, at 13s. each, should be made to the Group Secretary, Mr. Ralph Cropper, at Roadway House, 146, New Bond Street, London, W.1.

Railway Nationalisation Negotiations in Brazil.—Reuters reported from Rio de Janeiro on March 11 that the Brazilian Government, in spite of opposition from certain quarters, was going ahead with its plan to nationalise the Leopoldina and Great Western of Brazil railways, and eventually certain other foreign-owned utilities in Brazil. Although the London directors of the Leopoldina Railway who are in Rio de Janeiro to study the position of the railway (see our March 5 issue) had not then had any effective meetings with the Brazilian authorities, and were understood to be still examining the situation in conjunction with the local management, it was expected that talks between the railway and officials of the Brazilian Ministry of Transport would begin shortly.

B.A.G.S. General Meeting.—An extraordinary general meeting of the Buenos Ayres Great Southern Railway Co. Ltd. will be held at River Plate House, Finsbury Circus, London, E.C.2, on April 2, at 11 a.m., to receive special resolutions relating to the winding up of the company. The resolutions propose the appointment of Mr. B. H. Binder and Mr. N. F. E. Grey as liquidators, and the conferring on them of powers to pay any classes of creditors; to make compromises or arrangements with creditors and claimants against the company, and generally to compromise claims as between the company and debtors.

Milk Hauliers to Apply for Rate Increase.—Milk carriers are being advised by the Road Haulage Association to ask the Milk Marketing Board for a revision of rates to meet the increased cost of wages. This recommendation follows a meeting between officials of the board and Mr. C. Windsor-Richards and Mr. R. P. Miers, Chairman and Vice-Chairman of the R.H.A. Milk Carriers Functional Group National Committee. The board is not willing to agree to a general increase in rates, but will consider applications accompanied by figures supporting a claim for revision. Hauliers are advised to submit disputed cases to the Joint Milk Haulage Committee.

Subsidiary Assets of Uruguay Railways.—Certain subsidiary assets of the British-owned railway companies apparently are not included in the price of £7,150,000 to be paid by the Uruguay Government for their acquisition, although this embraces all the railway assets, including stores and spares. Reuters reported from Montevideo on March 11 that among the subsidiary properties were the Sayago Club and sites for fuel storage at Bella Vista. A quantity of materials also was not included in the price and is expected to be the subject of further negotiations. It was suggested that negotiations over materials might concern merely the Government's reimbursement to the companies of their expenditure on materials since last July. Under the terms of the sale agreement, the operation of the railways from last July is to be for account of the Government, as reported in our March 12 issue.

Isle of Man Railway Company.—Receipts for the year ended December 31, 1947, were £90,573, a decrease of £7.867. Expenditure rose from £80,159 to £80,815, leaving net revenue of £9.758, as compared with £18,281 in the previous year. After payment of debenture interest and other charges, the balance available for dividends is £8,203. The directors recommend a payment of 5 per cent. on the preference share capital and 2½ per cent. on the paid-up ordinary share capital of the company, leaving a balance of £2,204 to be carried forward.

Locomotive Gas Turbine Exhibited.—A new gas turbine for locomotives has been exhibited at Schenectady (N.Y.), U.S.A., by the makers, the General Electric Company and the American Locomotive Company. Designed to fit the measurements of a conventional locomotive, the new turbine is a compact unit, 19 ft. long, and weighs 20,000 lb. It has already undergone more than 300 hr. of tests, on which it has developed 6,000 h.p., reaching full power after about 3½ min. from the start. A 200-h.p. diesel is used to crank the big unit; the turbine, turning two large main generators, is rated at 4,800 h.p. The engine is started on diesel fuel which is changed to bunker "C" fuel oil when the locomotive is running at speed.

Costa Rica Railway Co. Ltd.—Remittances received for the year to June 30 last from the Northern Railway Company (which works the company's railway), amounted to £3,506. The accounts of the Northern Railway Company show an operating profit for the year of U.S. $239,059. After charging the annual sum due under the working agreement, and the New York administration expenses, there is a loss for the year of $291,017. Interest on investments and from other sources received during the year by the Costa Rica Railway Co. Ltd. amounted to £9,499, and transfer and registration fees to £30, giving a total of £13,035. After deducting interest on debentures, directors' fees, expenses of administration, and the annual payment for redemption of the first and second mortgage debentures, and adding the debit balance brought forward of £201,040, there was a debit balance at June 30 last of £240,616.

Anti-Attrition Metal Co. Ltd.—Completion of the changeover from wartime to peacetime production was among the reasons given by Mr. S. P. Loosen, Chairman & Managing Director of the Anti-

Attrition Metal Co. Ltd., for the company's manufacturing profit of £41,152 in 1947, when addressing stockholders on February 26. The company had full order books and the directors were still optimistic with regard to its future prosperity. A dividend of 10 per cent., less tax, was declared on the company's capital of £400,000.

Conditions of Carriage of Livestock by Road.—Since ordinary conditions of carriage cannot always be applied to livestock traffic, a special set of conditions has been drawn up by the Livestock Functional Group of the Road Haulage Association. The Association has now approved them and recommended that they should be put into practice by all livestock carriers. The conditions, which do not apply to wild animals, provide for a maximum liability of £100 for a horse; £50 per head of meat cattle; £5 for a sheep, ass, mule or pig; £2 for a dog, deer or goat; 7s. 6d. for a rabbit or small quadruped; and 7s. 6d. for a bird; unless a separate agreement is made.

Forthcoming Meetings

March 22 (*Mon.*).—The Institution of Electrical Engineers, Savoy Place, London, W.C.2, at 5.30 p.m. Discussion: "The Location of Underground Services," opened by J. W. Leach.

March 23 (*Tues.*).—The Institution of Civil Engineers, Great George Street, Westminster, S.W.1, at 5.30 p.m. "L.M.S.R. Lawley Street Goods Depot, Birmingham," by Mr. E. F. Ingall and Mr. E. Lancaster.

March 30 (*Tues.*) to April 3 (*Sat.*).—The Model Railway Club Exhibition, at Central Hall, Westminster, S.W.1. Tuesday, 2 p.m. to 9 p.m.; Wednesday-Saturday, 11 a.m. to 9 p.m.

Railway Stock Market

Stock markets have turned firmer, helped by the progress of the Paris talks and the belief that Marshall aid to Europe is likely to be speeded by the latest developments. Moreover, news that the Budget is scheduled for April 6 was well received, because the Chancellor's decisions, although probably unpleasant in many respects, will do much to remove the stagnating uncertainty of recent weeks. In most quarters it is realised that voluntary limitation of dividends to last year's rates, now having approval from Sir Stafford Cripps, is likely to be the rule during the current year; and that it will be prudent therefore not to expect higher dividend payments. This bears heavily on shareholders in companies which have been following a progressive policy and have made good progress in export markets.

Nevertheless, taking more than a very short view, it should not be overlooked that the rate of dividend actually earned is likely to have an important influence on market values of individual shares. Moreover, it is believed in the City that voluntary limitation of dividends to last year's levels is much to be preferred to another increase in the profits tax, which would mean lower dividend payments from many companies unable to increase their trading profits.

In contrast with the firmer tendency in industrial shares, British Funds have lost further ground, particularly the irredeemable and long-dated stocks, 2½ per cent. Treasury Bonds (which it may be recalled were issued at par during the cheaper money drive) having now fallen to the new low level of 77¼. Transport (1978-88) has weakened to 96¼, it being pointed out in the market that the more immediate outlook for this stock will depend on the "life" of the forthcoming British Electricity stock. If, as is being suggested in some quarters, it is made 15 years shorter-dated than Transport stock, the latter and all other longer-dated securities will be expected to be adjusted downward in price. On the other hand, should the new electricity stock be only 10 years shorter-dated than Transport stock, gilt-edged prices might rally.

Much quieter conditions have ruled in foreign rails, with Leopoldina 16, the preference stock 52, and 4 per cent. debentures 78. San Paulo was steady at 162, and Great Western of Brazil shares changed hands up to 78s. 6d. In other directions, Uruguay rails lost further ground, with Central Uruguay 15½ and the second debentures 80½.

Argentine railway stocks have been firm, with some buying of the ordinary and preference stocks. Most of the debentures changed hands on a cash basis, and in some cases the books were closed finally on Tuesday last. In other directions, Antofagasta were 12, with the preference stock firmer at 61; but Beira Railway bearer shares eased to 52s. 6d., and, elsewhere, United of Havana 1906 debentures were back to 15. Canadian Pacifics improved to 18⅞, while the preference stock changed hands around 75, and the debentures around 110.

There was firmness in road transport and kindred shares, with Lancashire United up to 77s. 6d. following the profit increase and the doubling of the year's payment at 20 per cent. Thomas Tilling have been firm at 96s. 6d., reflecting market estimates of the value of the assets required by the British Transport Commission.

Iron and steel shares have been firmer, with United Steel 29s., Dorman Long 30s. 9d., Colvilles 30s. 3d., and Guest Keen 46s. 6d. Shares of locomotive building and engineering companies have been rather less active, because dividend limitation would rob these shares of speculative attractions. North British Locomotive have changed hands around 24s. xd., with Vulcan Foundry at 28s. 9d.

Traffic Table and Stock Prices of Overseas and Foreign Railways

	Railways	Miles open	Week ended	Traffic for week: Total this year	Traffic for week: Inc. or dec. compared with 1945 46	No. of Week	Aggregate traffics to date: Totals 1947 8	Aggregate traffics to date: Totals 1946 7	Aggregate traffics to date: Increase or decrease	Shares or Stock	Prices: Highest 1947	Prices: Lowest 1947	Prices: March 16 1948
				£	£		£	£	£				
South & Central America	Antofagasta	834	7.3.48	56,360	+ 20,500	10	507,920	356,280	+ 151,640	Ord. Stk.	17	9½	12
	Bolivar	174	Feb., 1948	$87,758	− $25,850	9	$186,305	$228,677	− $42,372	6 p.c. Deb.	25	16½	27½
	Brazil	—	—	—	—	—	—	—	—	Bonds	44½	26	43
	Cent. Uruguay	970	6.3.48	37,684	+ 571	36	1,224,993	1,331,089	− 106,096	Ord. Stk.	30½	9½	16
	Costa Rica	262	Jan., 1948	39,420	+ 9,103	31	237,139	190,342	+ 46,797	Stk.	13	8½	8
	Dorada	70	Feb., 1948	16,700	− 12,900	9	39,800	60,300	− 20,500	1 Mt. Deb.	108	100½	106½
	G.W. of Brazil	1,030	6.3.48	40,400	+ 1,600	10	385,600	382,000	+ 3,600	Ord. Stk.	102 6	19/–	3¾
	Inter. Ctl. Amer.	794	Jan., 1948	$1,257,553	+ $ 76,145	5	$1,257,553	$1,181,408	+ $76,145	—	—	—	—
	La Guaira	22¾	Feb., 1948	$90,232	− $9,559	9	$168,310	$225,067	− $56,757	5 p.c. Deb.	88½	65	82½
	Leopoldina	1,918	6.3.48	50,655	− 11,766	10	529,896	624,066	− 94,170	Ord. Stk.	22½	3¼	15½
	Mexican	483	31.5.47	ps. 1,464,000	+ ps. 459,100	22	ps. 7,706,200	ps. 13,441,600	+ ps. 5,220,000	Ord. Stk.	8	¾	1
	Midland Uruguay	319	Jan., 1948	20,654	+ 7,149	31	126,102	125,785	+ 317	—	—	—	—
	Nitrate	382	29.2.48	12,923	+ 6,381	9	45,779	31,950	+ 13,829	Ord. Sh.	86/3	62/6	67/6
	N.W. of Uruguay	113	Dec., 1947	3,686	− 2,085	26	29,982	34,050	− 4,068	—	—	—	—
	Paraguay Cent.	274	5.3.48	₲ 98,441	+ ₲ 16,305	36	₲ 2,357,502	₲ 2,300,371	+ ₲ 57,131	Pr.Li.Stk.	60½	44½	45½
	Peru Corp.	1,059	Feb., 1948	152,387	+ 19,314	35	1,359,079	1,201,535	+ 157,544	Pref.	13	7	7
	Salvador	100	Dec., 1947	c251,000	+ c43,000	26	c722,600	c620,000	+ c102,600	—	—	—	—
	San Paulo	153½	—	—	—	—	—	—	—	Ord. Stk.	189½	129½	160
	Taltal	156	Jan., 1948	8,870	+ 6,445	31	49,610	31,835	+ 17,775	Ord. Sh.	24/–	17/–	18/9
	United of Havana	1,301	8.3.48	112,947	+ 16,166	36	2,398,155	2,011,423	+ 386,732	Ord. Stk.	4¼	1½	1½
	Uruguay Northern	73	Jan., 1948	1,216	+ 5	31	7,721	9,242	− 1,521	—	—	—	—
Canada	Canadian National	23,535	Jan., 1948	8,500,500	+ 286,000	5	8,500,500	8,214,500	+ 286,000	—	—	—	—
	Canadian Pacific	17,037	Jan., 1948	6,231,500	+ 391,750	5	6,231,500	5,839,750	+ 391,750	Ord. Stk.	18⅞	16	18⅛
Various	Barsi Light†	202	Feb., 1948	20,445	+ 772	48	270,367	245,542	+ 24,825	Ord. Stk.	114½	100½	103½
	Beira	204	Dec., 1947	127,025	+ 39,202	13	352,913	269,153	+ 83,760	—	—	—	—
	Egyptian Delta	607	31.1.48	21,950	+ 1,231	44	508,610	568,859	− 60,249	Prf. Sh.	6½	6	6½
	Manila	—	—	—	—	—	—	—	—	B. Deb.	83½	69	80
	Mid. of W. Australia	277	Jan., 1948	27,029	+ 9,233	31	162,529	119,078	+ 43,451	Inc. Deb.	75	65	74½
	Nigeria	1,900	Dec., 1947	415,702	+ 64,840	39	3,366,011	3,440,923	− 74,912	—	—	—	—
	Rhodesia	2,445	Sept., 1947	643,980	+ 102,833	52	6,787,603	6,174,664	+ 612,939	—	—	—	—
	South African	13,323	14.2.48	1,320,155	+ 119,417	46	57,901,276	53,105,481	+ 4,795,795	—	—	—	—
	Victoria	4,774	Nov., 1947	1,392,699	+ 188,174	22	—	—	—	—	—	—	—

† Receipts are calculated @ 1s. 6d. to the rupee